

Appendix C.

Typical Cross Sections

This summary presents guidance for geometric design as it pertains to horizontal and vertical alignment elements as well as track layouts at Caltrain Stations. There are guidelines and values for three types of design criteria: Desirable, Minimum and Exceptional as described in the Technical Memorandum: *Alignment Design Standards for High Speed Train Operation* by the California High Speed Rail Authority.

This appendix includes various typical sections that can be used for configurations throughout the corridor and are conceptual. These sections support the various vertical design options (at grade, elevated, below grade, and tunnel). For the at grade sections, two configurations for the electrification system (Overhead Contact System) are shown. There are also sample construction staging concepts shown for various vertical design options such that requirements for temporary construction easements could be identified.

The various typical sections are summarized and arranged by the minimum right-of-way required for the final configuration. These typical sections can be used with the existing Right-of-Way schematics in Appendix J. These sections also include transition sections which are required to move from one vertical design option to another. The Minimum Right-of Way Requirements schematics depict typical sections that correspond with the detailed typical sections, where Caltrain and California High-speed Train tracks may be elevated, at grade, below grade, or in transition along the corridor. The specified right of way widths (designated in the color scheme) also correlates to the Plan and Profile Drawings (shown in Appendix B) that shows existing rail right of way along the corridor. A 5' utility easement is considered in the dimensioned ROW widths. Temporary construction easements are not factored in these ROW dimensions. There are total of 3 minimum right-of-way exhibits for:

- Mainline Track
- Stations - Center Island or Inboard Platforms
- Stations - Outboard Platforms

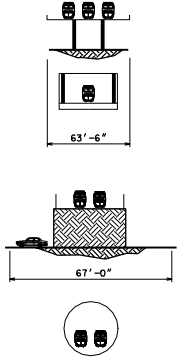
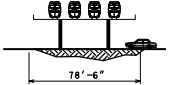
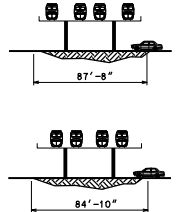
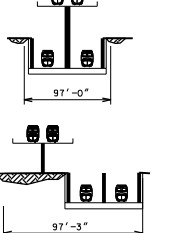
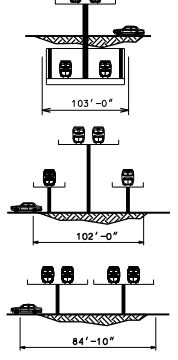
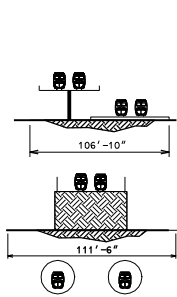
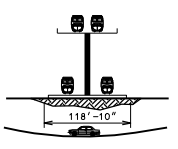
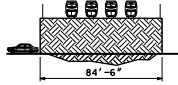
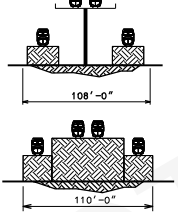
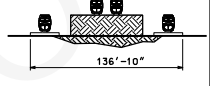
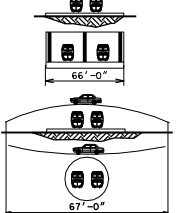
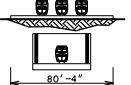
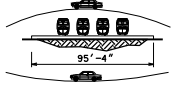
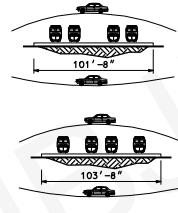
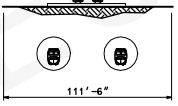
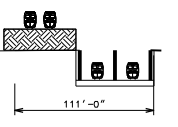
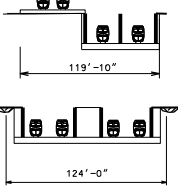
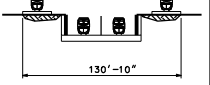
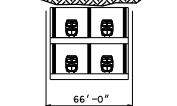
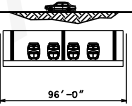
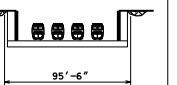
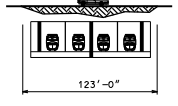
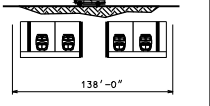
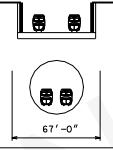
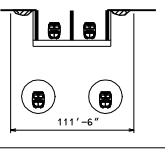
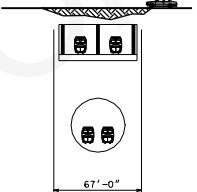
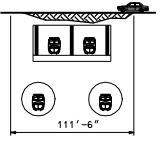
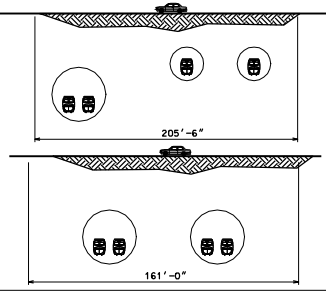
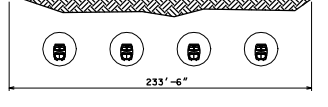
Main Line

- HST - Track spacing is 16 feet 6 inches (center to center) – Desirable
- HST – Track spacing is 15 feet (center to center) – Minimum
- HST – Track spacing is 14 feet (center to center) - Exceptional
- Caltrain – Track spacing is 15 feet (center to center)
- Track spacing between mainline track and sidings is 25 feet.

Utility Easement

Third party utilities (fiber optic, etc) will be consolidated in a 5 feet utility easement.

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MINIMUM RIGHT-OF-WAY REQUIREMENTS											
	<60'	60' - 69'	70' - 79'	80' - 89'	90' - 99'	100' - 104'	105' - 114'	115' - 124'	125' - 150'	151' - 215'	≥216'
ELEVATED (AERIAL / BERM)											
TRANSITION ZONE - ELEVATED TO AT-GRADE (MIN LENGTH REQ = 6,280')											
AT-GRADE (ROAD OVER OR ROAD UNDER)											
TRANSITION ZONE - AT-GRADE - BELOW GRADE (MIN LENGTH REQ = 6,280')											
BELOW GRADE (CUT AND COVER BOX/TRENCH)											
TRANSITION ZONE - TRENCH - BORED/ MINED TUNNEL											
BELOW GRADE (CUT AND COVER BOX - BORED / MINED TUNNEL)											

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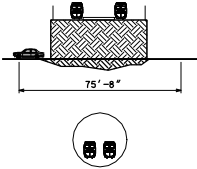
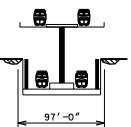
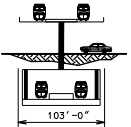
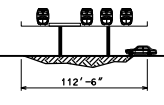
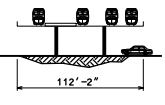
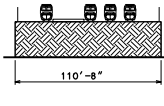
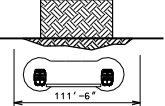
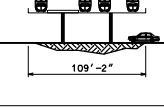
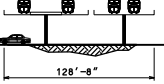
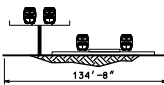
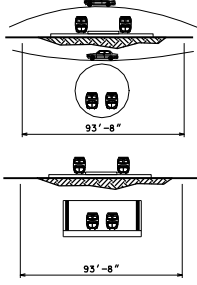
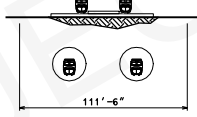
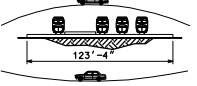
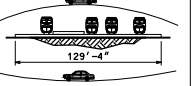
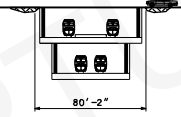
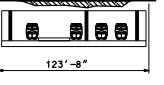
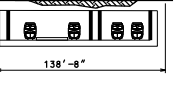
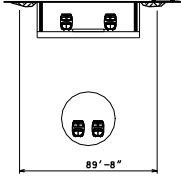
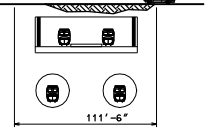
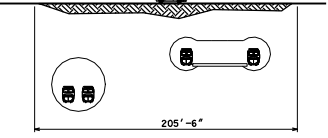
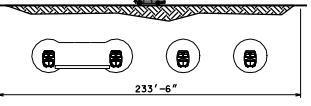
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ELEVATED (AERIAL / BERM)							    		 		
TRANSITION ZONE - ELEVATED TO AT-GRADE (MIN LENGTH REQ = 6,280')											
AT-GRADE (ROAD OVER OR ROAD UNDER)											
TRANSITION ZONE - AT-GRADE - BELOW GRADE (MIN LENGTH REQ = 6,280')											
BELOW GRADE (CUT AND COVER BOX/TRENCH)											
TRANSITION ZONE - TRENCH - BORED/ MINED TUNNEL											
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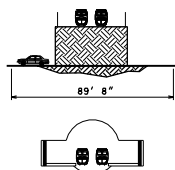
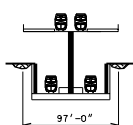
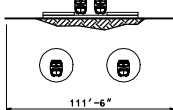
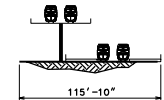
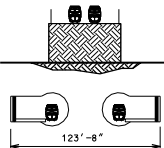

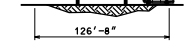
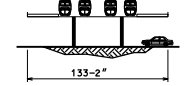
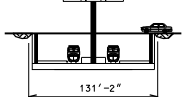
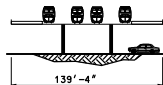
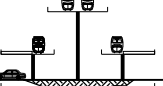
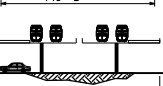
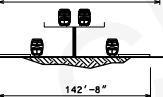
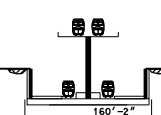
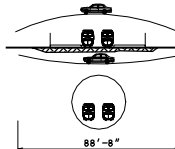
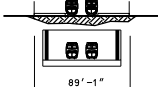
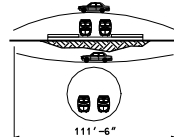
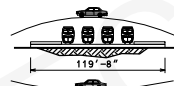
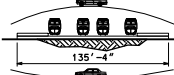
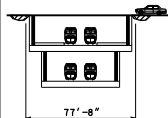
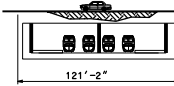
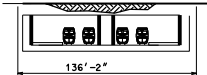
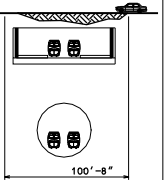
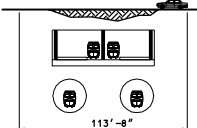
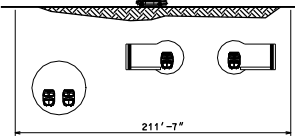
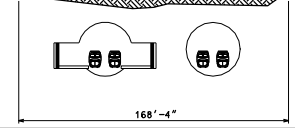
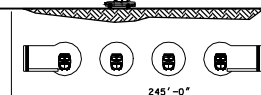


CALIFORNIA HIGH-SPEED RAIL AUTHORITY
FLY CALIFORNIA
Without ever leaving the ground.

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	MINIMUM RIGHT-OF-WAY REQUIREMENTS											
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TRANSITION ZONE - ELEVATED TO AT-GRADE (MIN LENGTH REQ = 6,280')												
AT-GRADE (ROAD OVER OR ROAD UNDER)				 								
TRANSITION ZONE - AT-GRADE - BELOW GRADE (MIN LENGTH, REQ = 6,280')												
BELOW GRADE (CUT AND COVER BOX/TRENCH)												
TRANSITION ZONE - TRENCH - BORED/ MINED TUNNEL												
BELOW GRADE (CUT AND COVER BOX -BORED / MINED TUNNEL)										 		

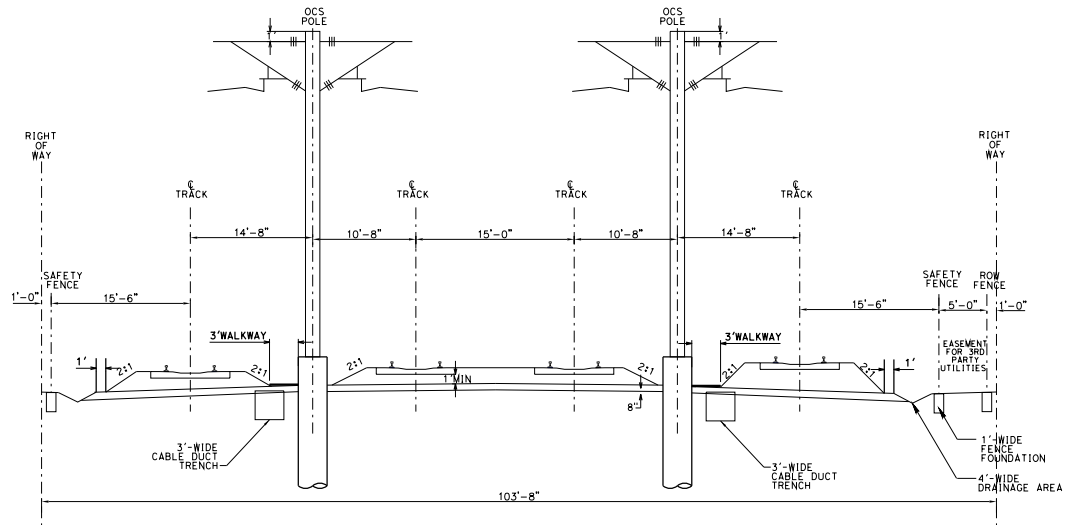
REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

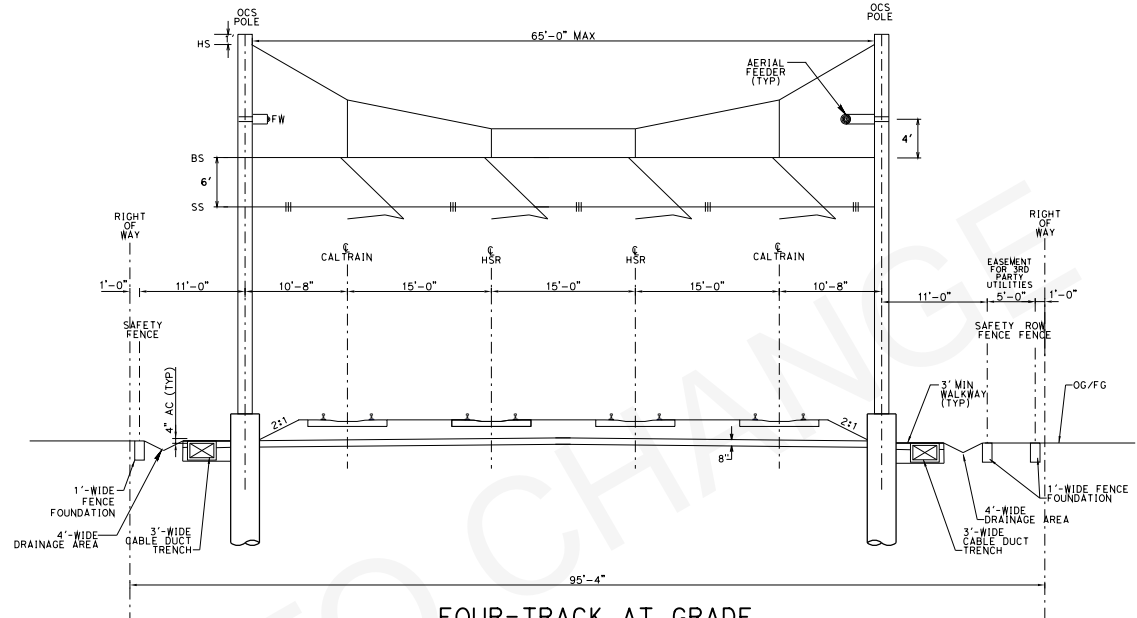


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MINIMUM RIGHT-OF-WAY REQUIREMENT EXHIBIT
STATIONS
OUTBOARD PLATFORMS
03/24/2010

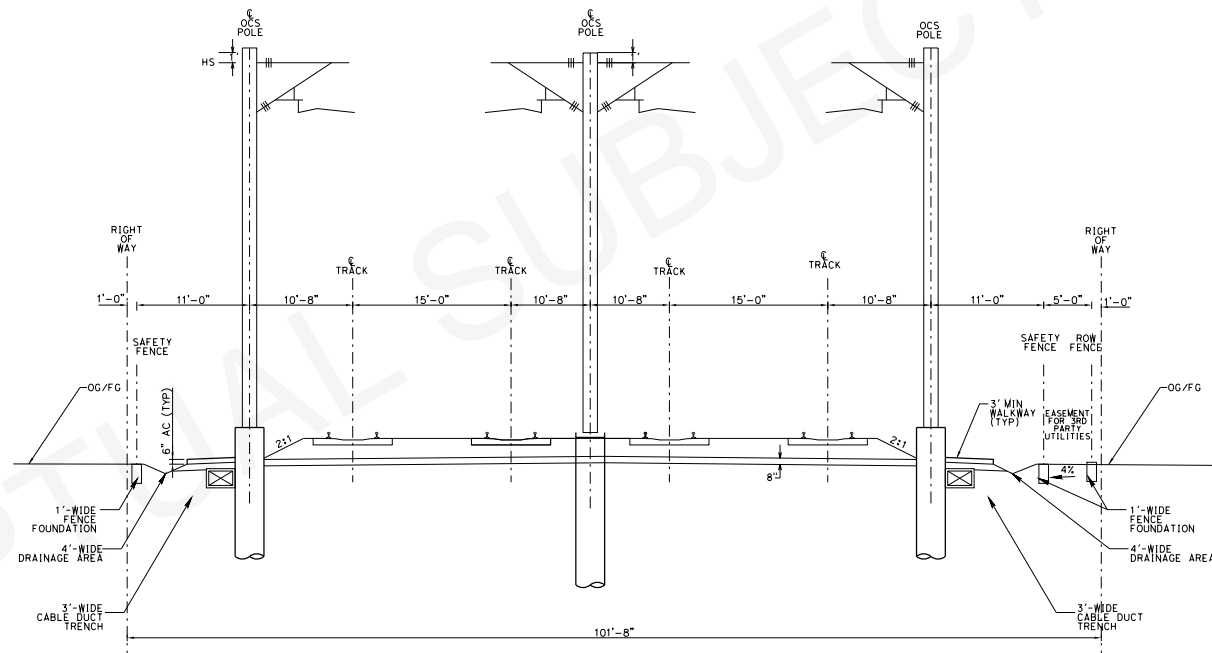
CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO.
2 OF 2



FOUR-TRACK AT GRADE
(AG-1)



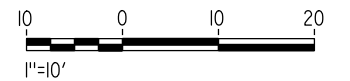
FOUR-TRACK AT GRADE
(AG-2)



FOUR-TRACK AT GRADE
(AG-3)



- NOTES:
- FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



\$/USER \$ DATE \$ \$/TIME \$ \$/FILES

REV	DATE	BY	CHK	APP	DESCRIPTION

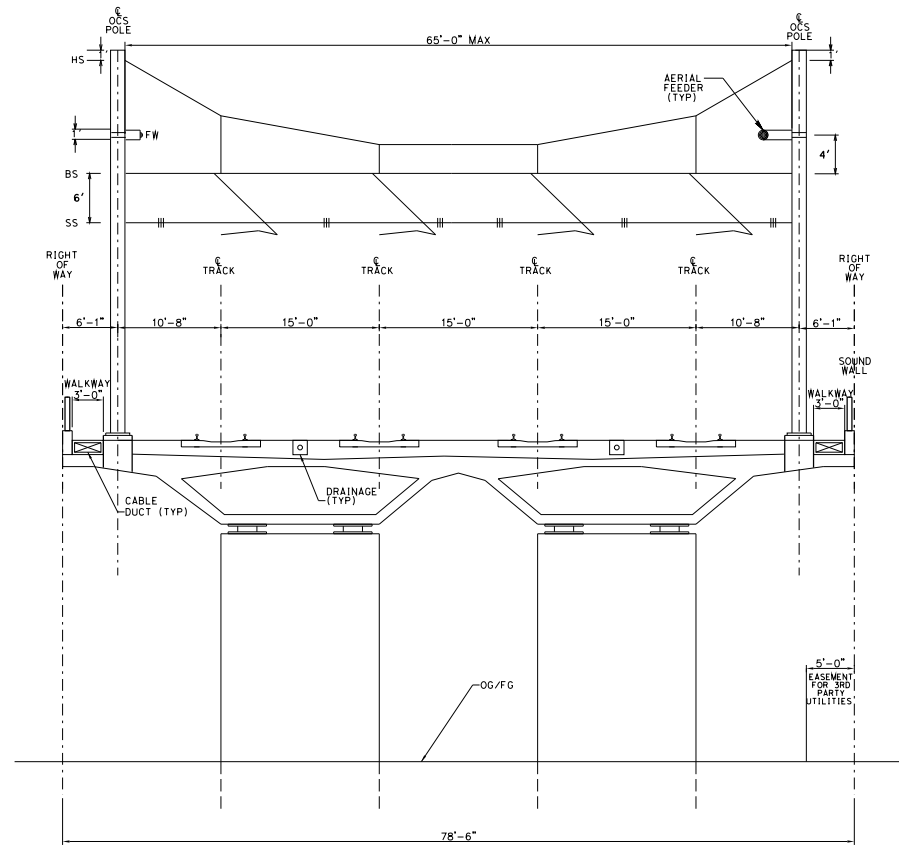
DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	



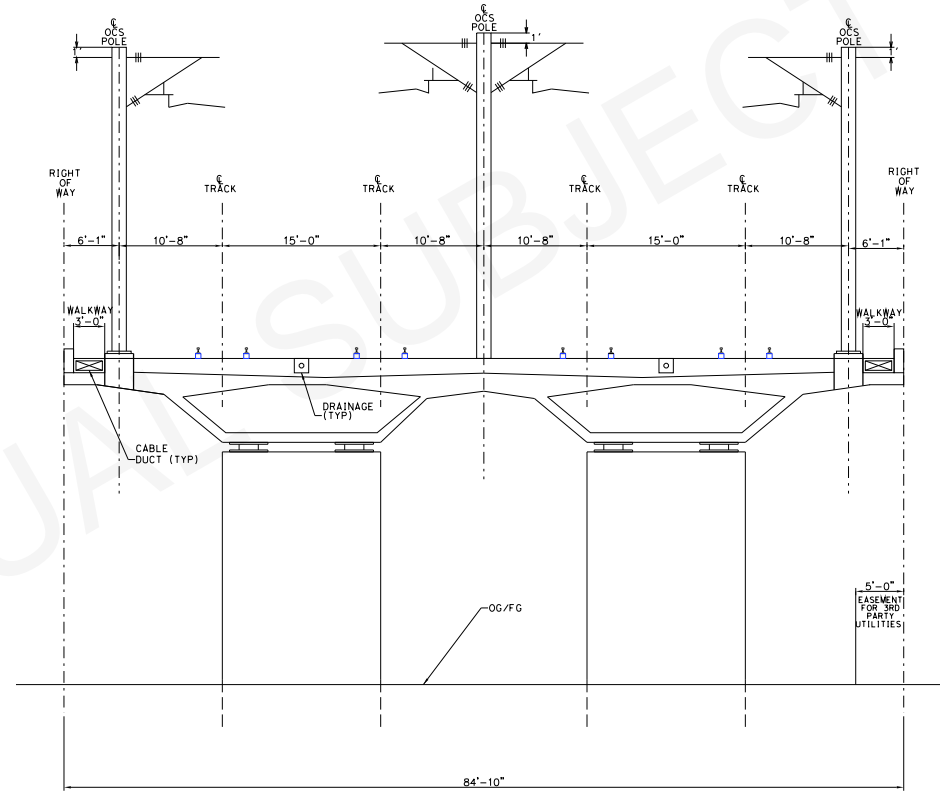
CALIFORNIA HIGH-SPEED TRAIN PROJECT

AT-GRADE
DRAFT TYPICAL SECTIONS
03/24/2010

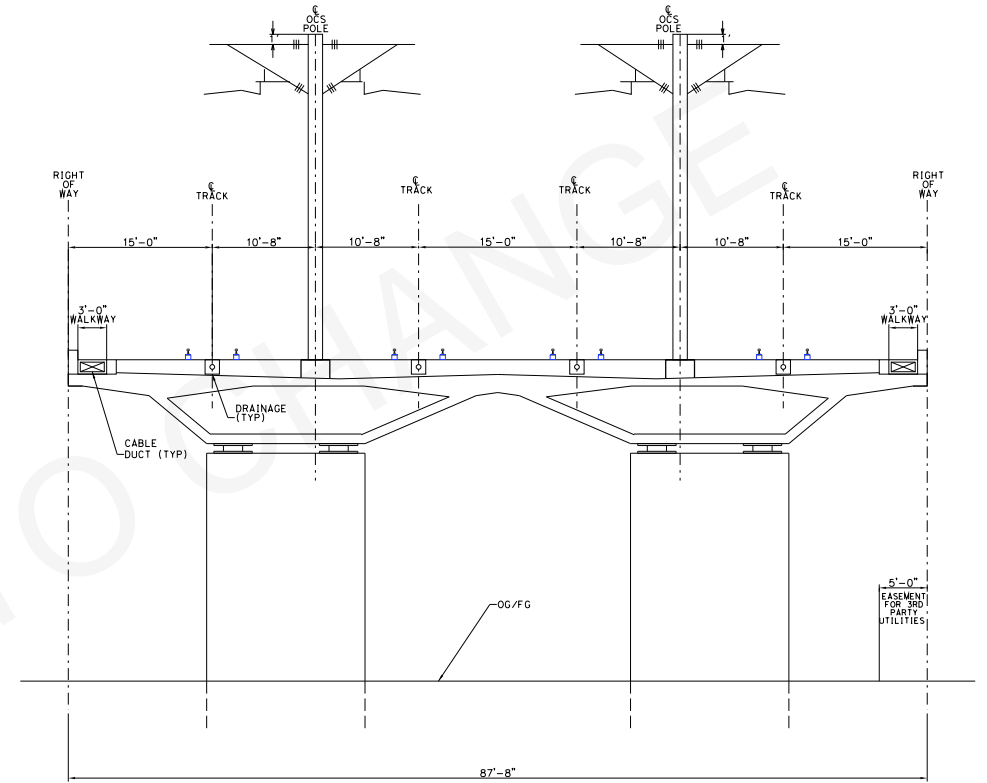
CONTRACT NO.	
DRAWING NO.	
SCALE	
SHEET NO.	1 OF 24



FOUR-TRACK STRUCTURE
(S-1)



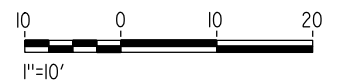
FOUR-TRACK STRUCTURE
(S-2)



FOUR-TRACK STRUCTURE
(S-3)



- NOTES:
1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



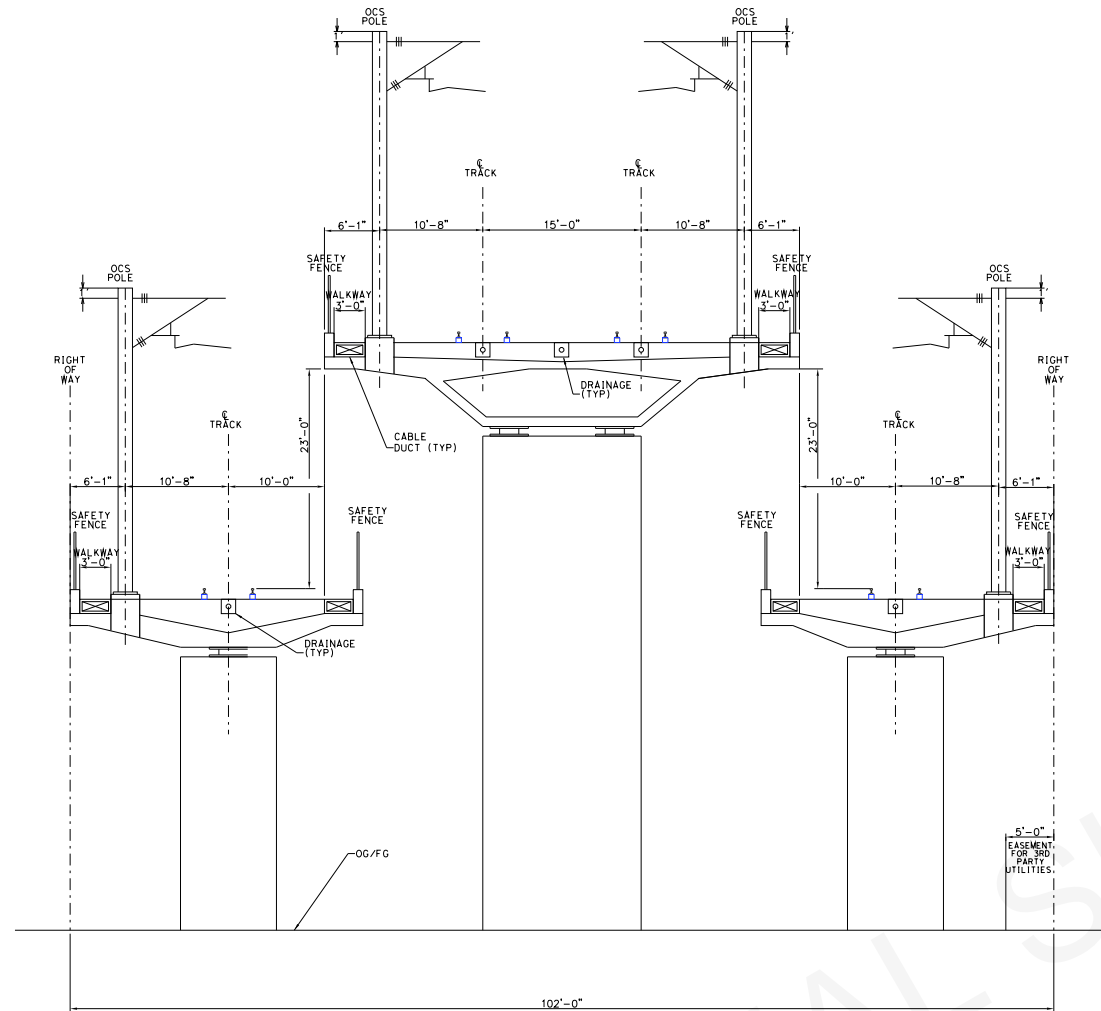
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REV	DATE	BY	CHK	APP	DESCRIPTION

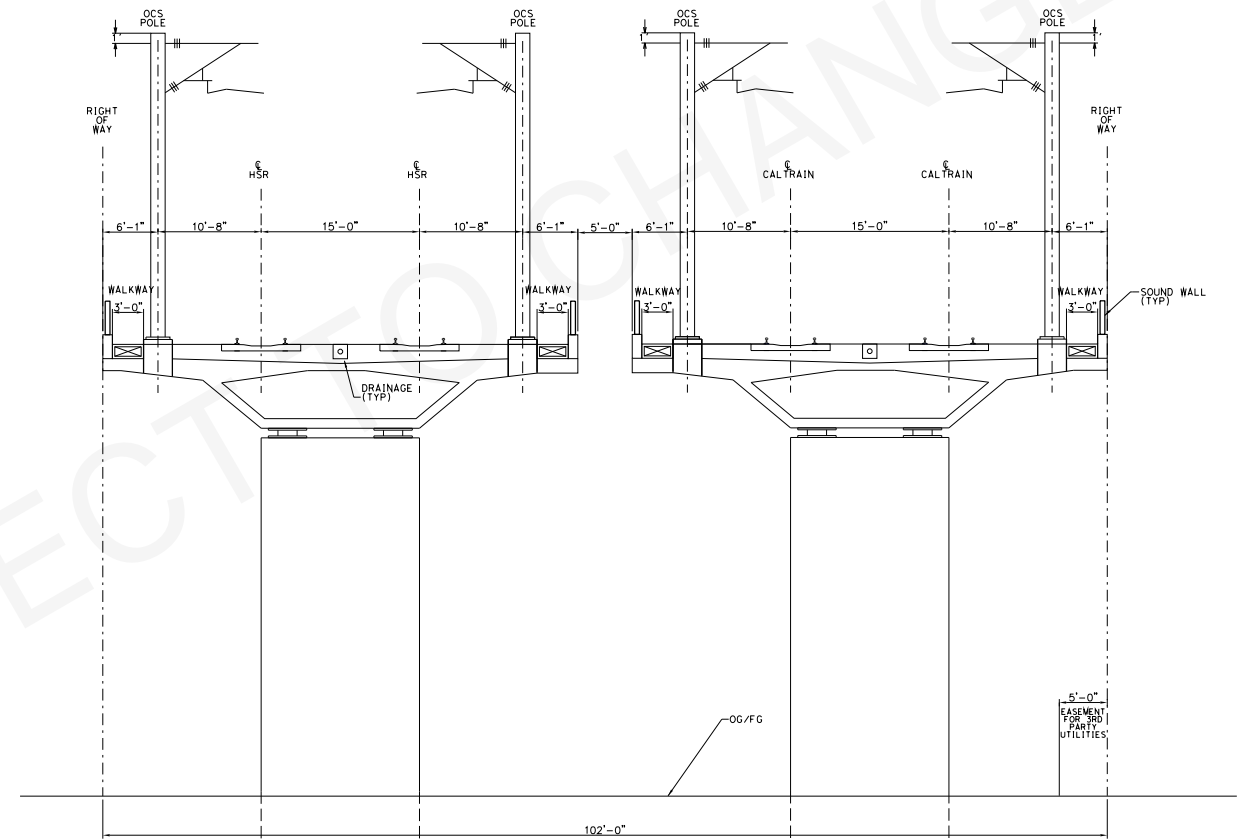
DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE



CALIFORNIA HIGH-SPEED TRAIN PROJECT STRUCTURAL DRAFT TYPICAL SECTIONS 03/24/2010	CONTRACT NO.
	DRAWING NO.
	SCALE
	SHEET NO. 2 OF 24



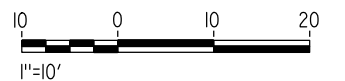
TWO-SINGLE TRACK STRUCTURE WITH
DOUBLE TRACK STRUCTURE
(S-4)




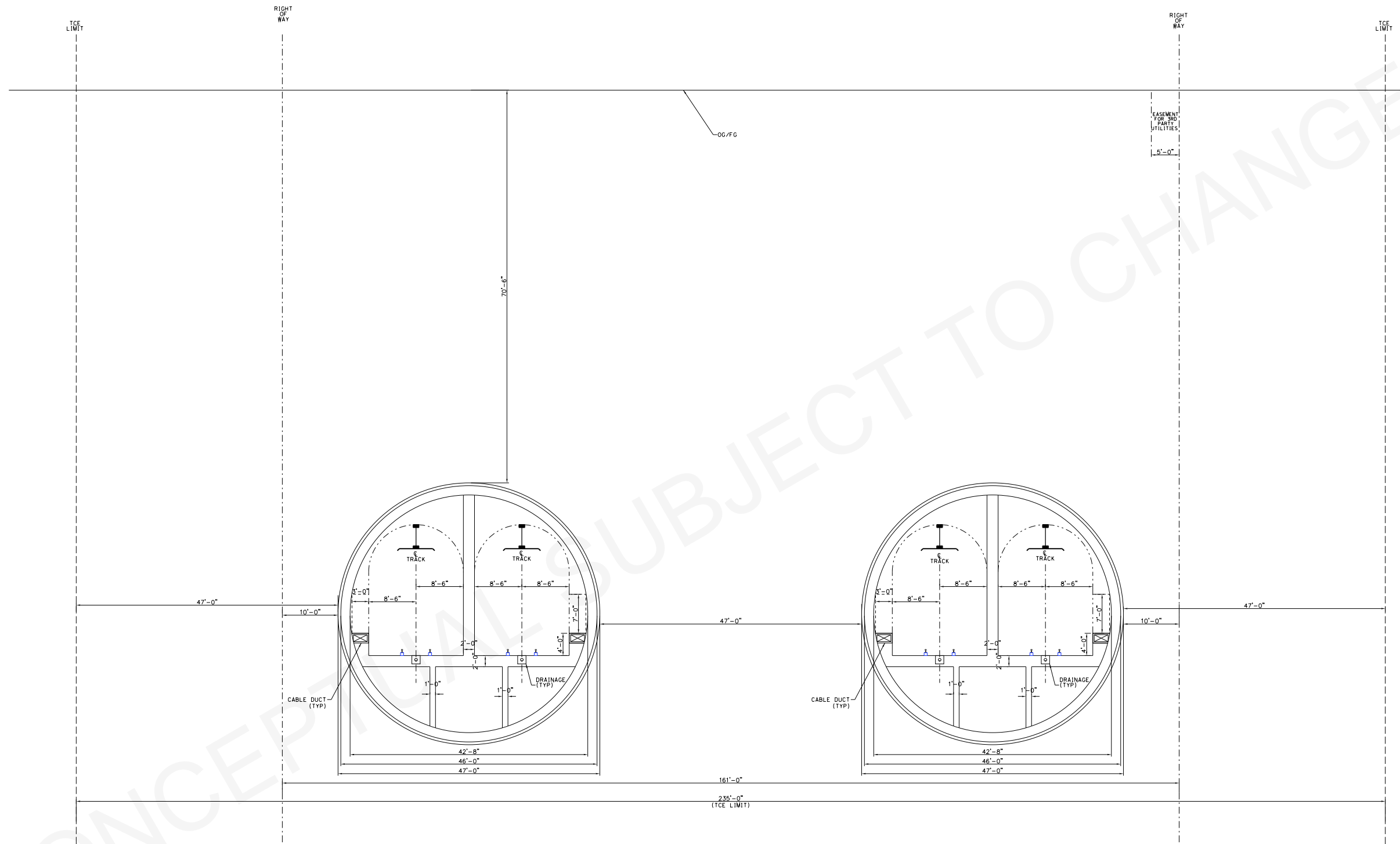
TWO-DOUBLE TRACK STRUCTURE
(S-5)

NOTES:

1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



							DESIGNED BY			 <div>CALIFORNIA HIGH-SPEED RAIL AUTHORITY</div> <div>FLY CALIFORNIA</div> <div>Without ever leaving the ground.</div>	CALIFORNIA HIGH-SPEED TRAIN PROJECT	CONTRACT NO.
						DRAWN BY	DRAWING NO.					
						CHECKED BY	SCALE					
						IN CHARGE	SHEET NO.					
						DATE	3 OF 24					
REV	DATE	BY	CHK	APP		DESCRIPTION						



- NOTES:
1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.

TWO-DOUBLE TRACK TUNNELS
(T-2)



\$USER \$ DATE \$ \$TIME \$ \$FILES \$

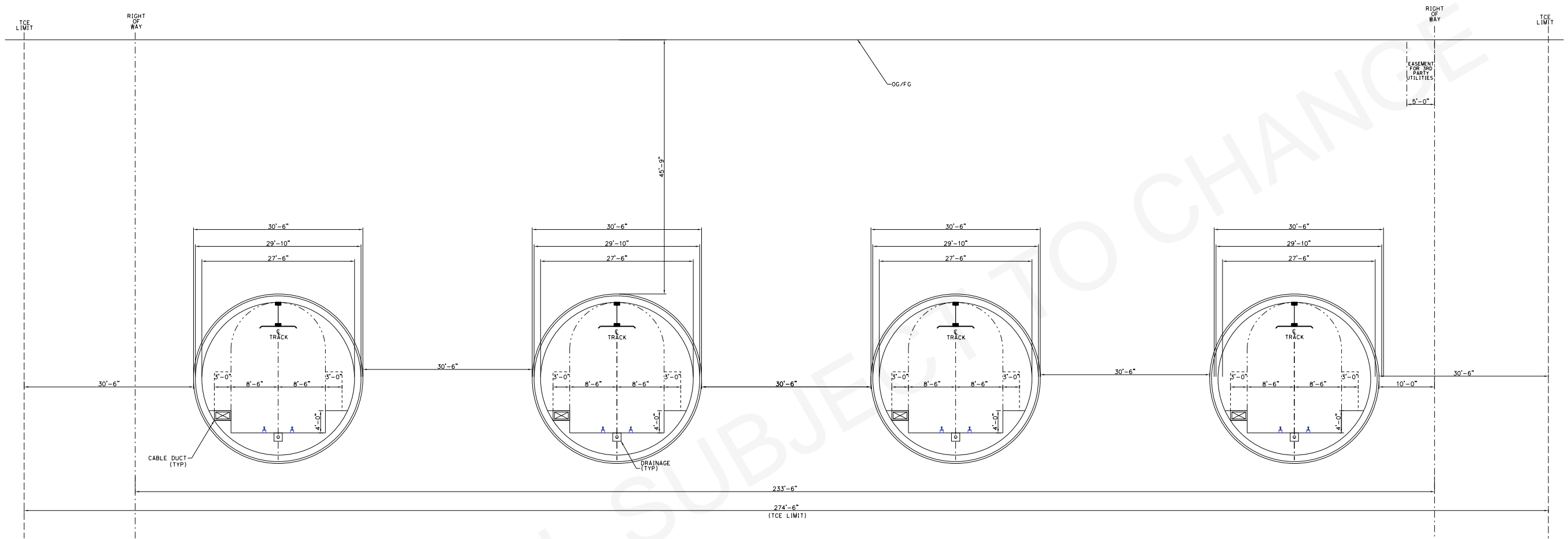
REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE



CALIFORNIA HIGH-SPEED TRAIN PROJECT
TUNNEL DRAFT TYPICAL SECTIONS 03/24/2010
CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 5 OF 24

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 5 OF 24



FOUR-SINGLE TRACK TUNNELS
(T-3)

- NOTES:
1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 26.



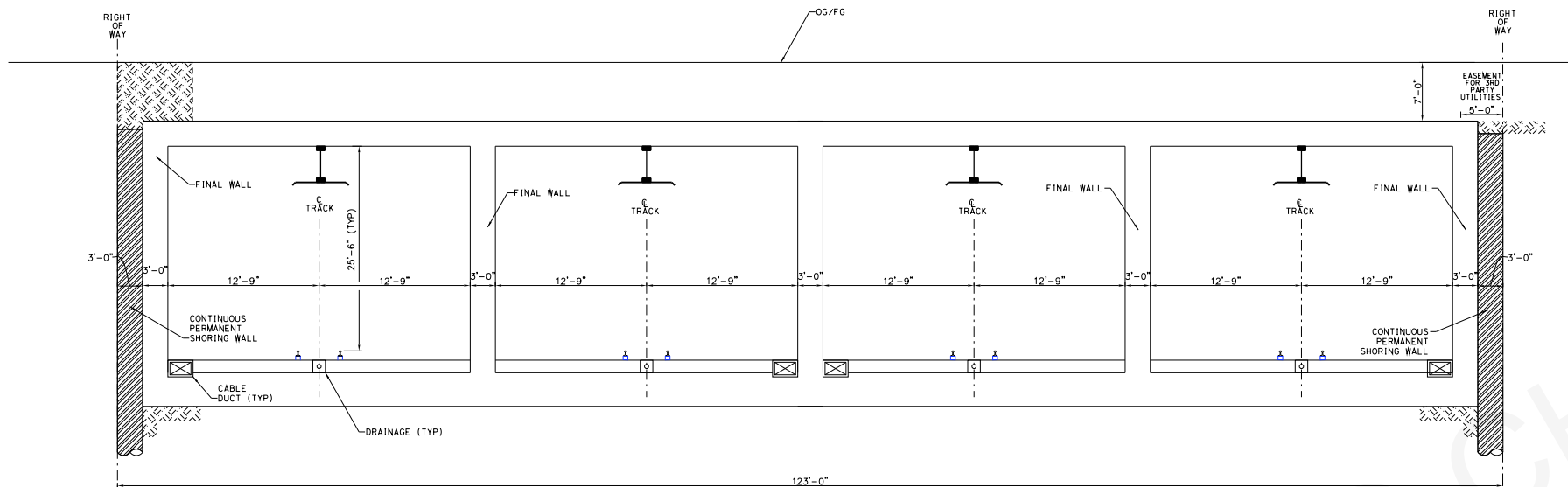
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REV	DATE	BY	CHK	APP	DESCRIPTION

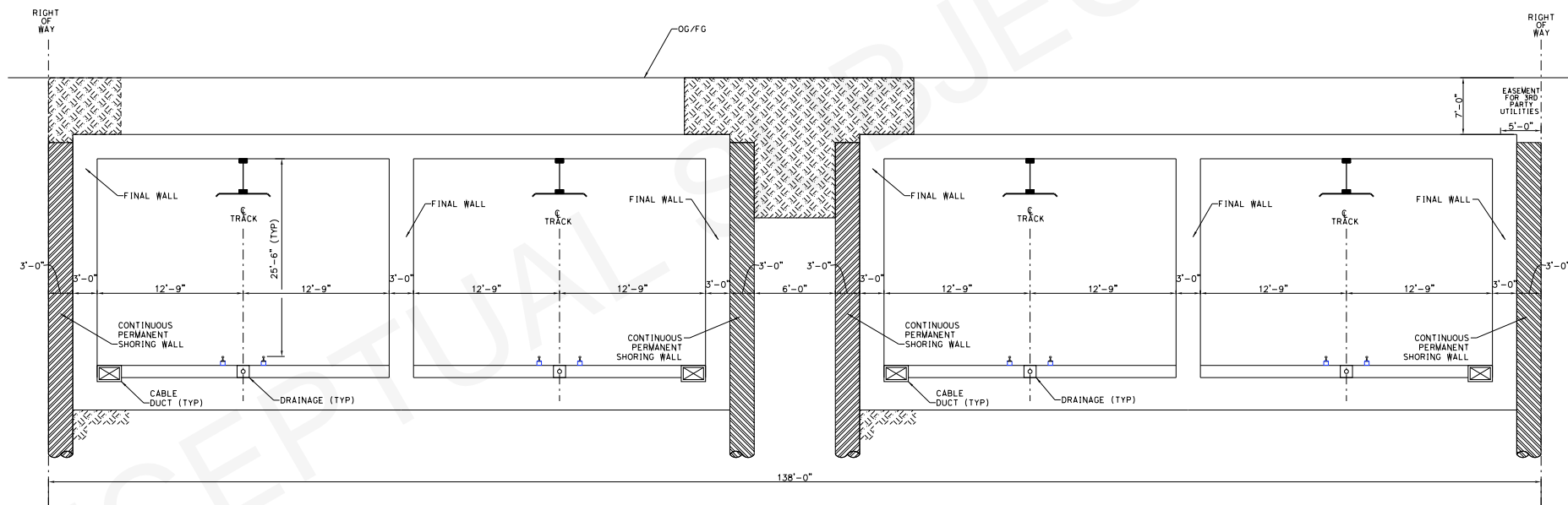
DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE



CALIFORNIA HIGH-SPEED TRAIN PROJECT
TUNNEL DRAFT TYPICAL SECTIONS 03/24/2010
CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 6 OF 26



FOUR TRACK CUT/COVER BOX
(CCB-1)



TWO-DOUBLE TRACK CUT/COVER BOX
(CCB-2)

- NOTES:
1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



\$USER \$ DATE \$ \$TIME \$ \$FILES \$

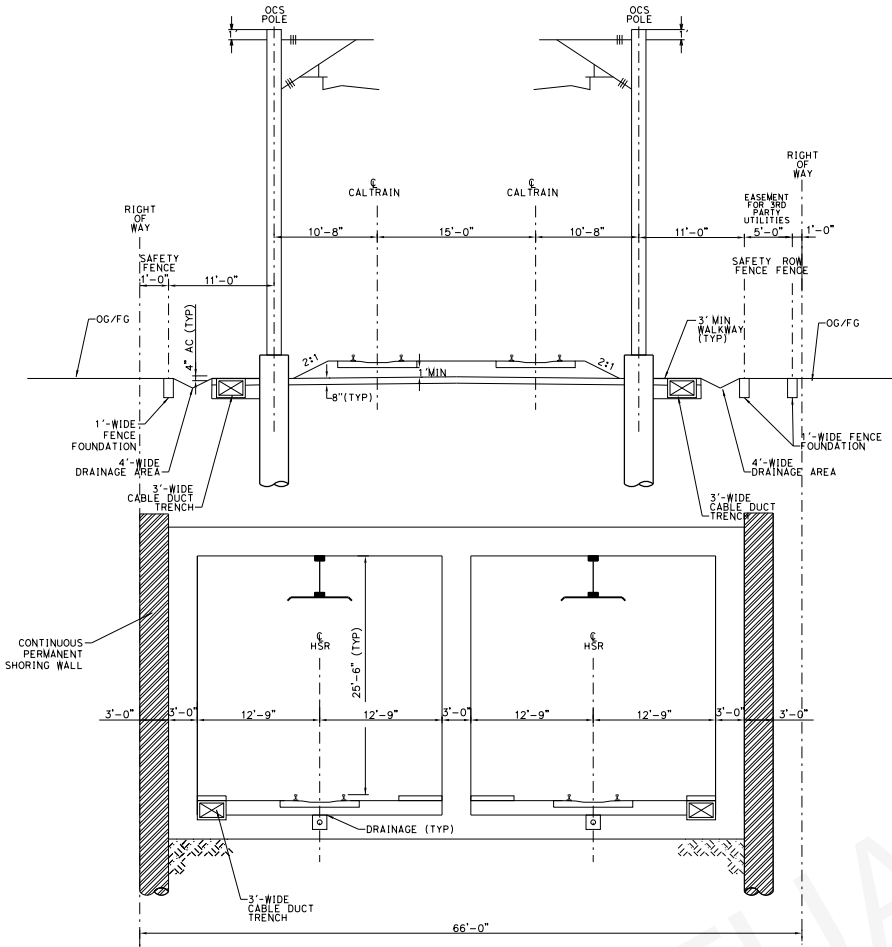
REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

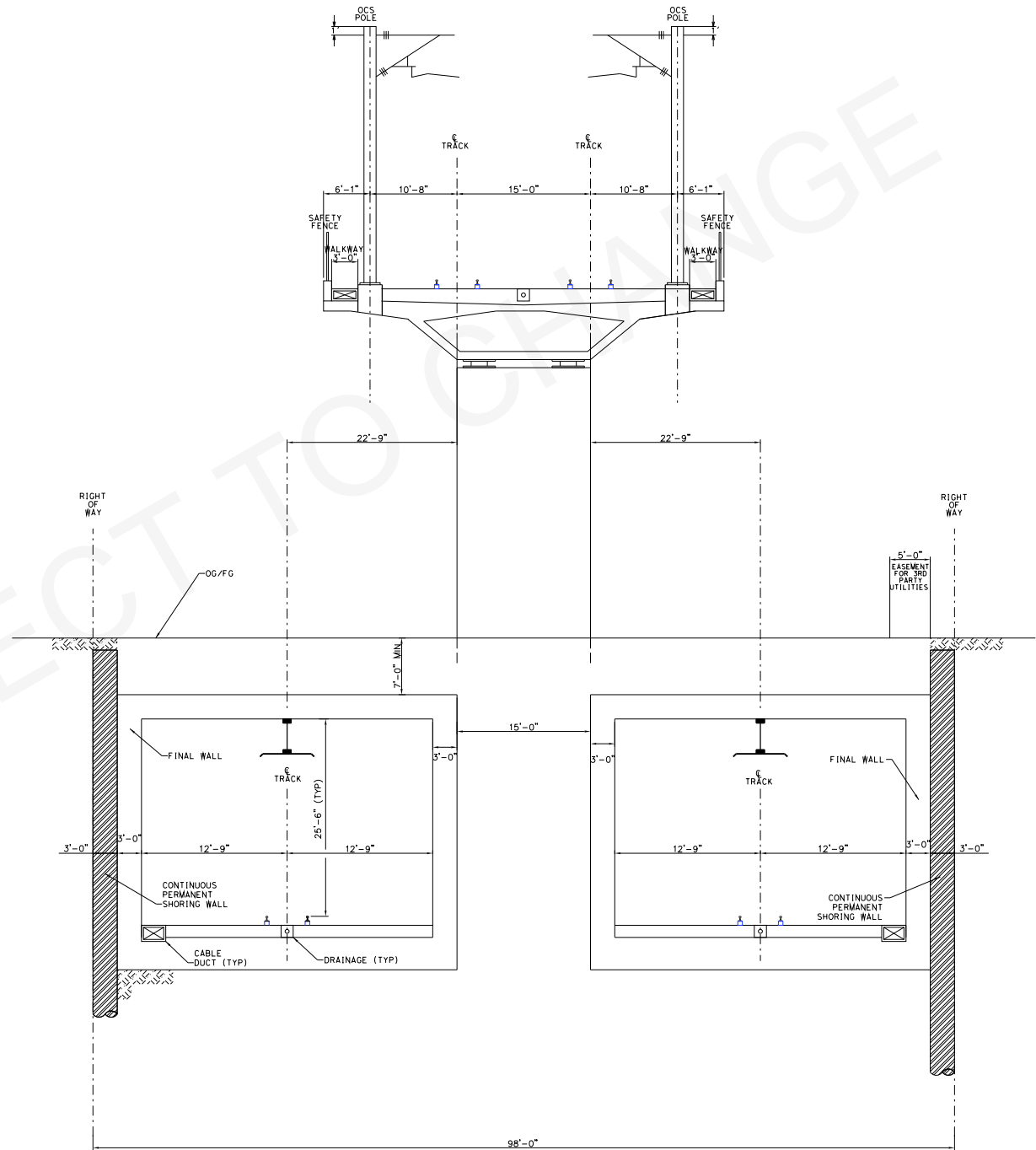


CALIFORNIA HIGH-SPEED TRAIN PROJECT CUT/COVER BOX DRAFT TYPICAL SECTIONS 03/24/2010	CONTRACT NO.
	DRAWING NO.
	SCALE
	SHEET NO. 7 OF 24

NOTES:
1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



DOUBLE TRACK AT GRADE WITH
DOUBLE CUT/COVER BOX
(AG-CCB-1)



DOUBLE TRACK STRUCTURE WITH
DOUBLE CUT/COVER BOX
(S-CCB-1)



\$USER \$ DATE \$ \$TIME \$ \$FILES \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

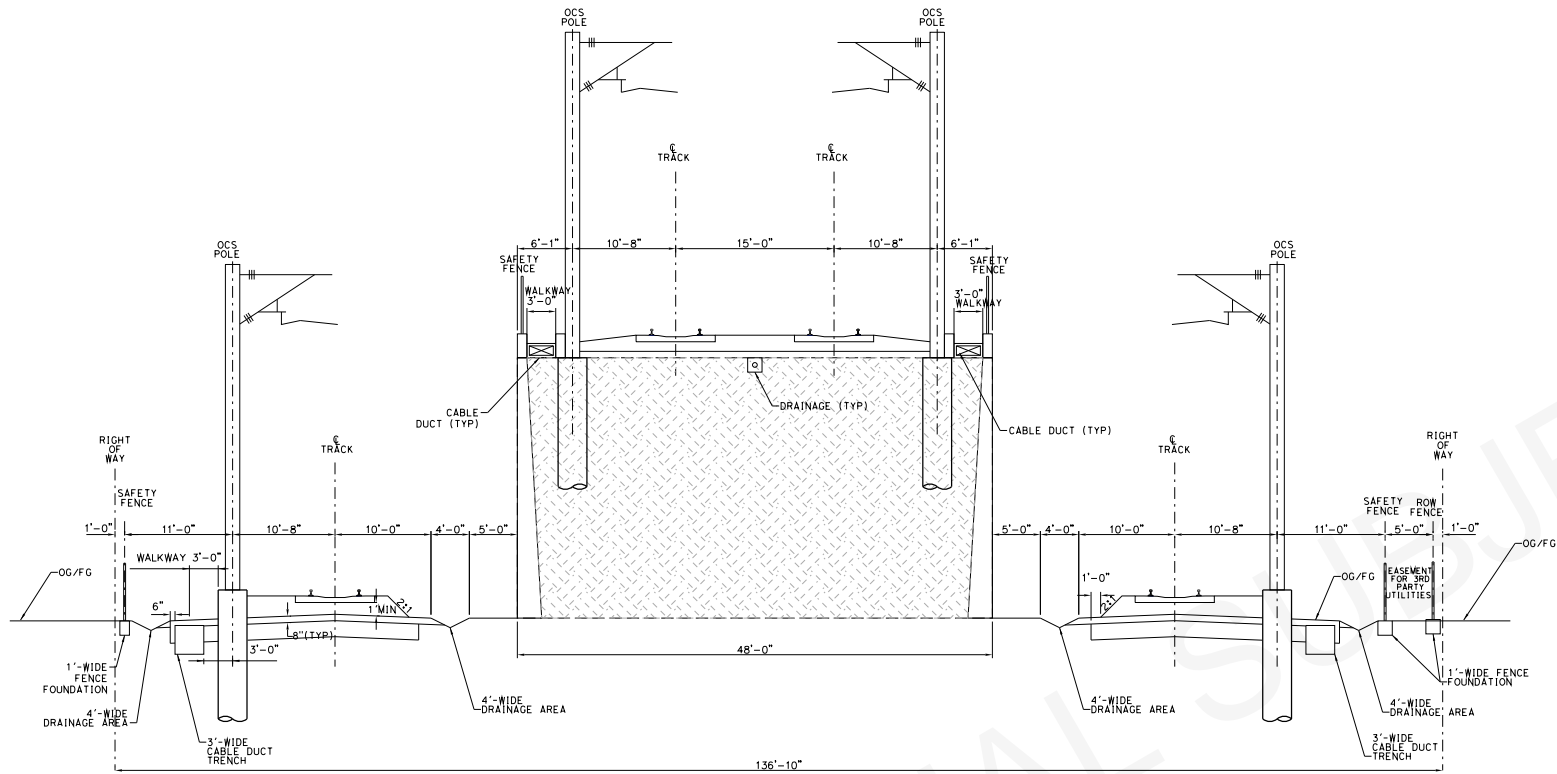


CALIFORNIA HIGH-SPEED RAIL AUTHORITY
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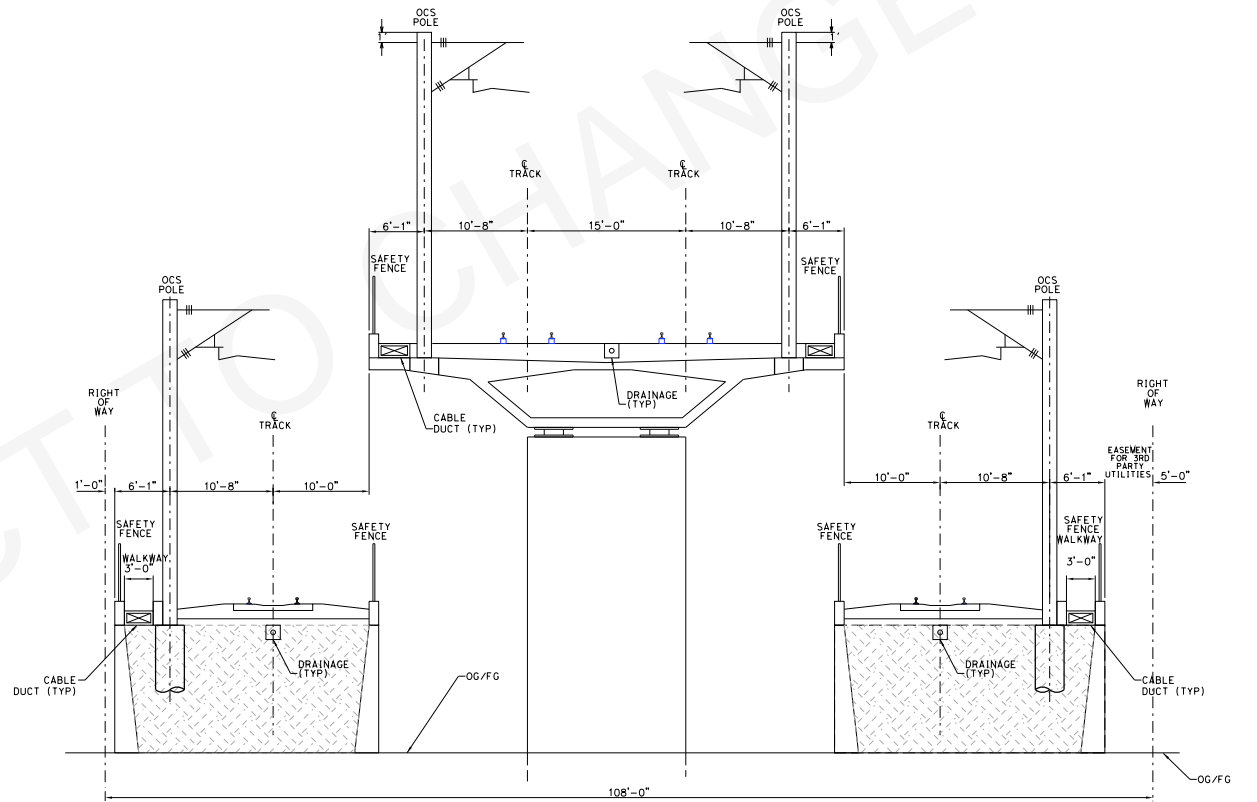
CALIFORNIA HIGH-SPEED TRAIN PROJECT

COMBINATION
DRAFT TYPICAL SECTIONS
03/24/2010

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 9 OF 24



DOUBLE TRACK ON RETAINED FILL WITH
TWO-SINGLE TRACK AT GRADE
(RF-AG)



TWO-SINGLE TRACK ON RETAINED FILL WITH
DOUBLE TRACK STRUCTURE
(RF-S)

- NOTES:
- FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



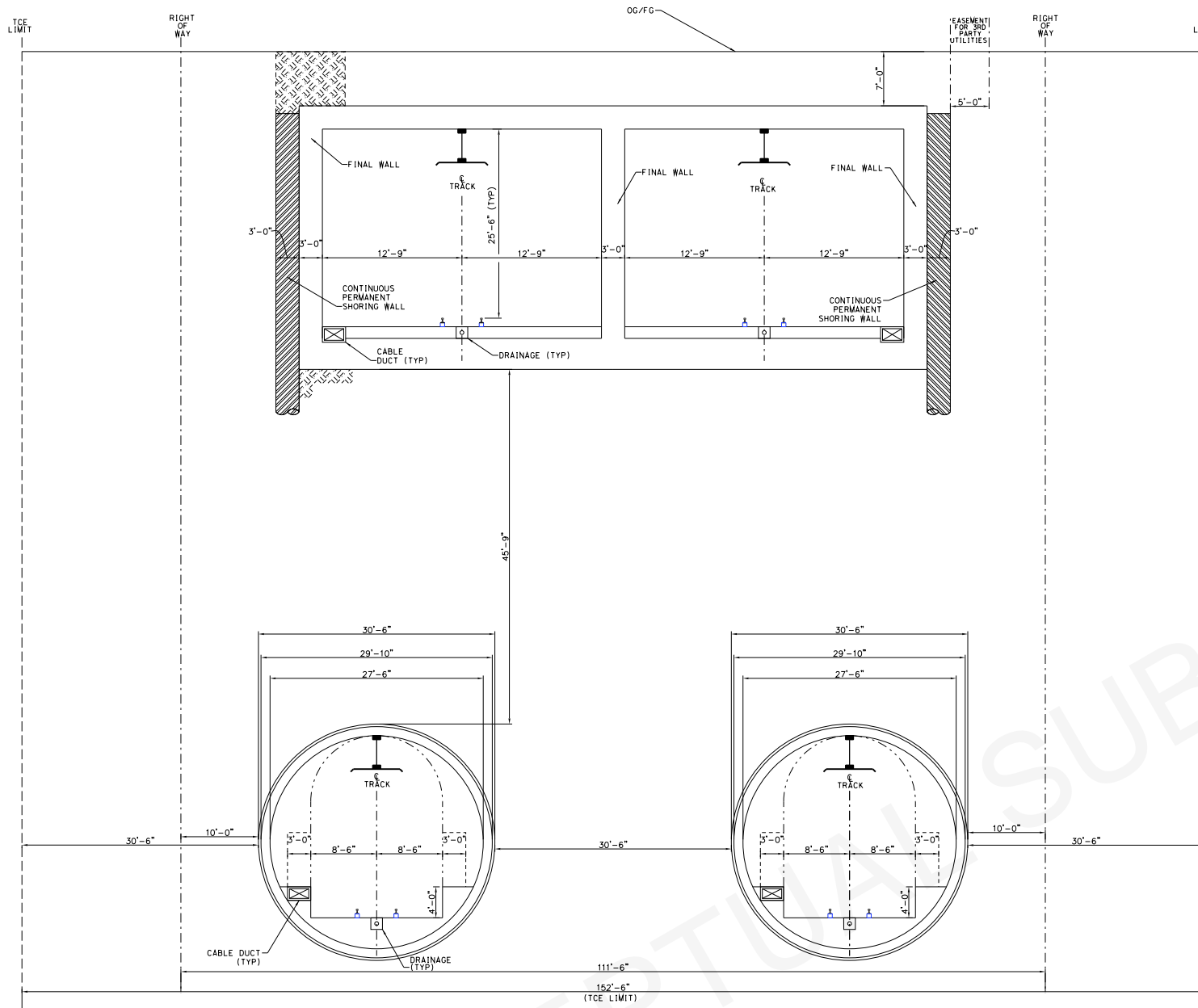
REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
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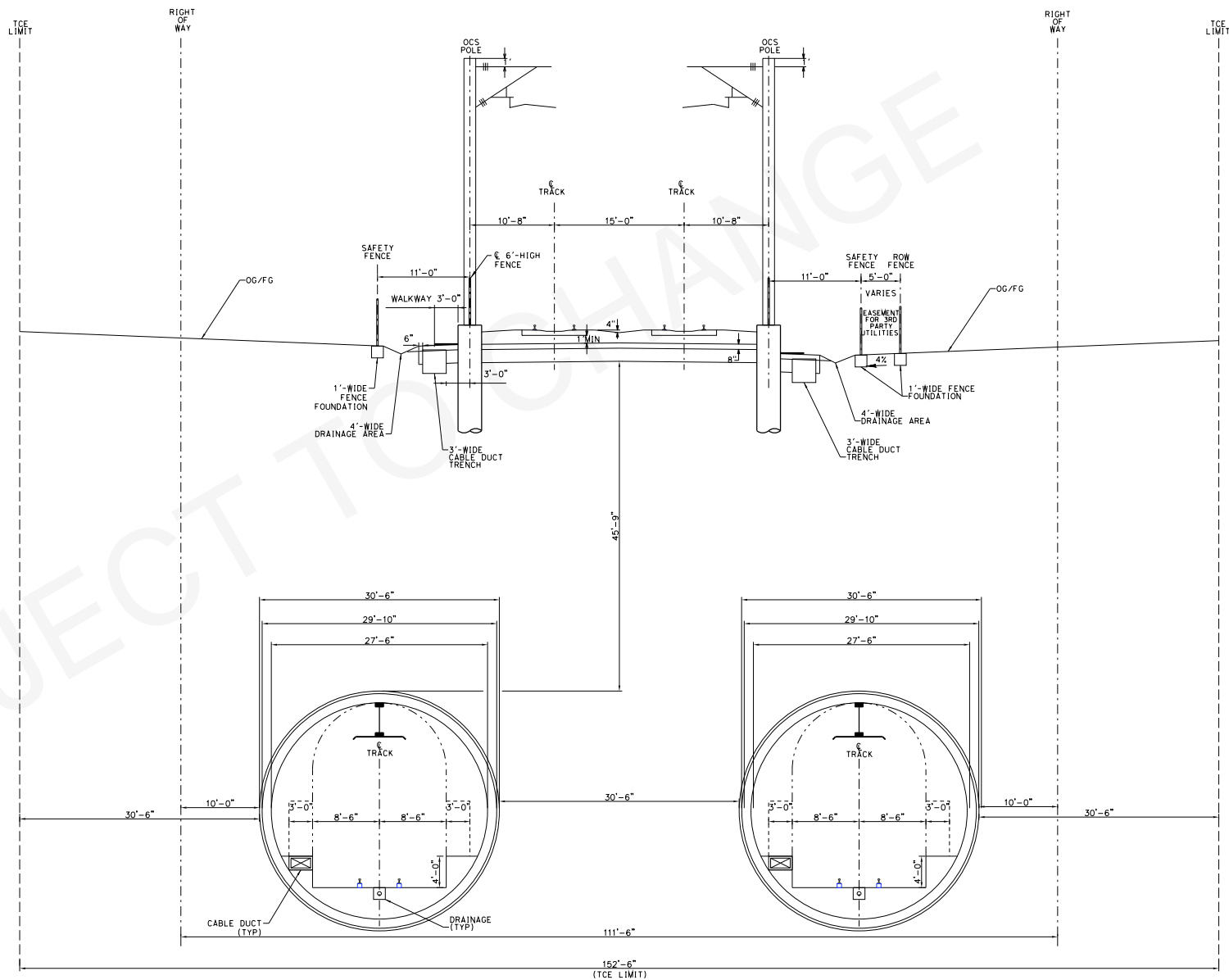


CALIFORNIA HIGH-SPEED TRAIN PROJECT COMBINATION DRAFT TYPICAL SECTIONS 03/24/2010	CONTRACT NO.
	DRAWING NO.
	SCALE
	SHEET NO.
	10 OF 24

\$USER \$DATE \$TIME \$FILES

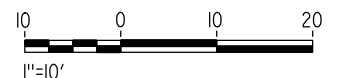


DOUBLE TRACK CUT/COVER BOX WITH
TWO-SINGLE TRACK TUNNELS
(CCB-T-2)



DOUBLE TRACK AT GRADE WITH
TWO-SINGLE TRACK TUNNELS
(AG-T-2)

- NOTES:
1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE



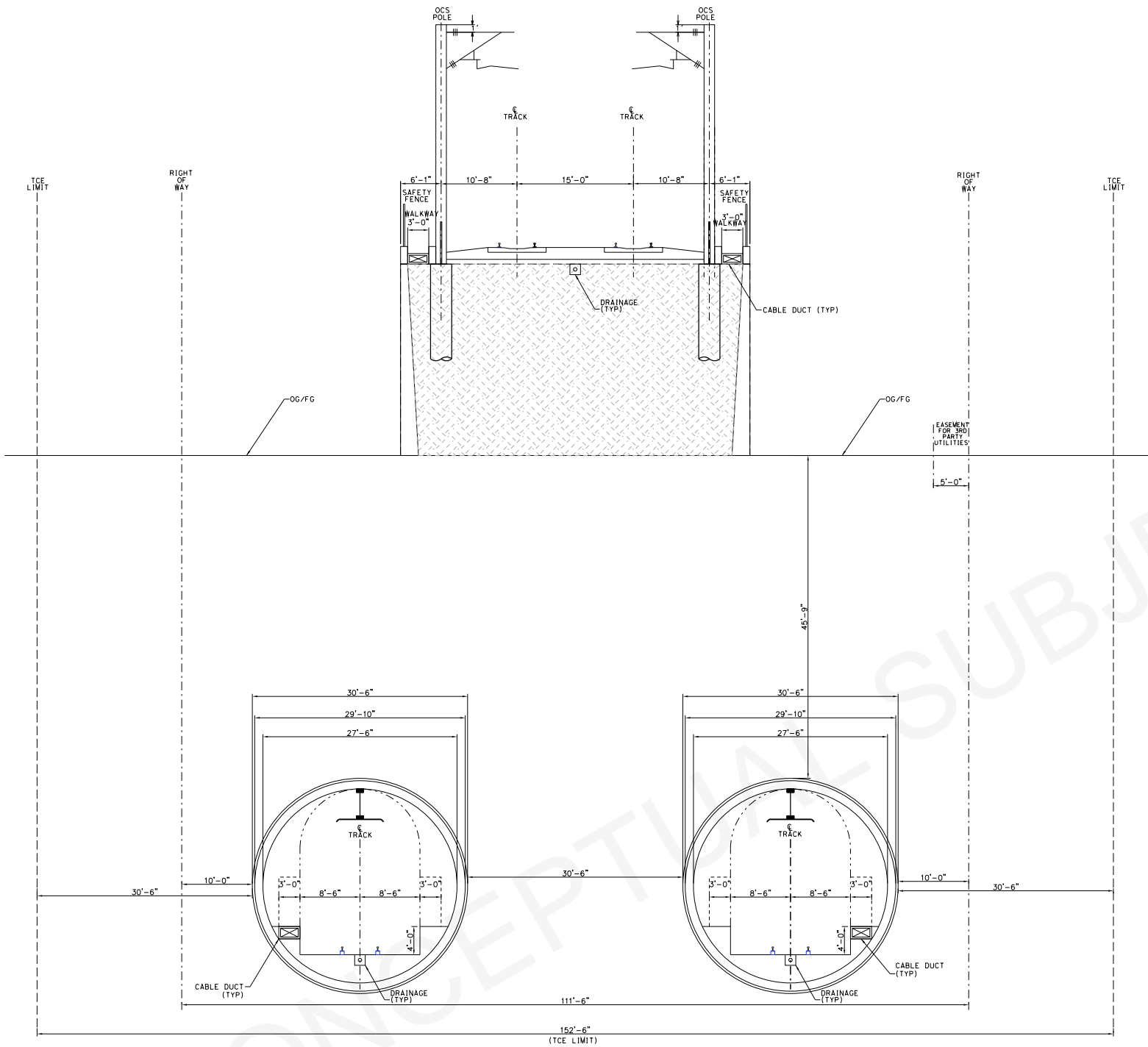
CALIFORNIA HIGH-SPEED TRAIN PROJECT

COMBINATION
DRAFT TYPICAL SECTIONS
03/24/2010

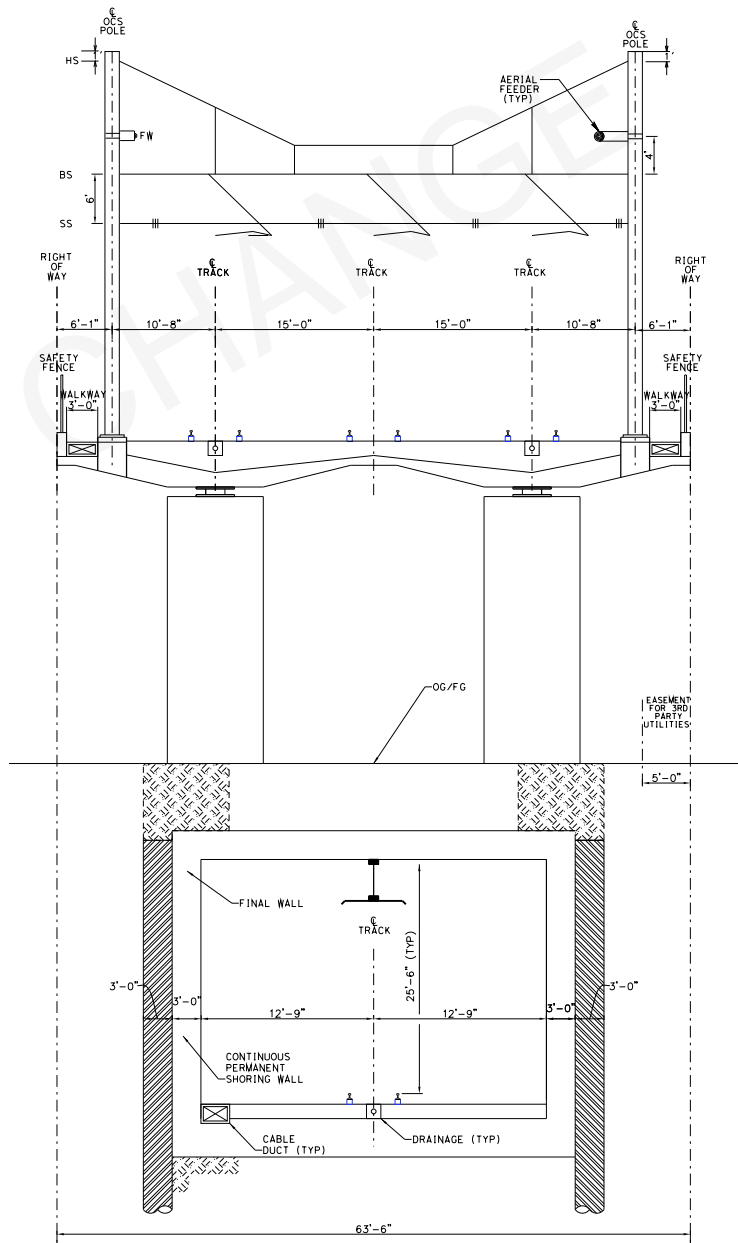
CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 12 OF 24

NOTES:

1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



DOUBLE TRACK ON RETAINED FILL WITH
TWO-SINGLE TRACK TUNNELS
(RF-T-1)



TRIPLE TRACK STRUCTURE WITH
SINGLE TRACK CUT/COVER BOX
(S-CCB-2)



\$USER \$DATE \$TIME \$FILES

REV	DATE	BY	CHK	APP	DESCRIPTION

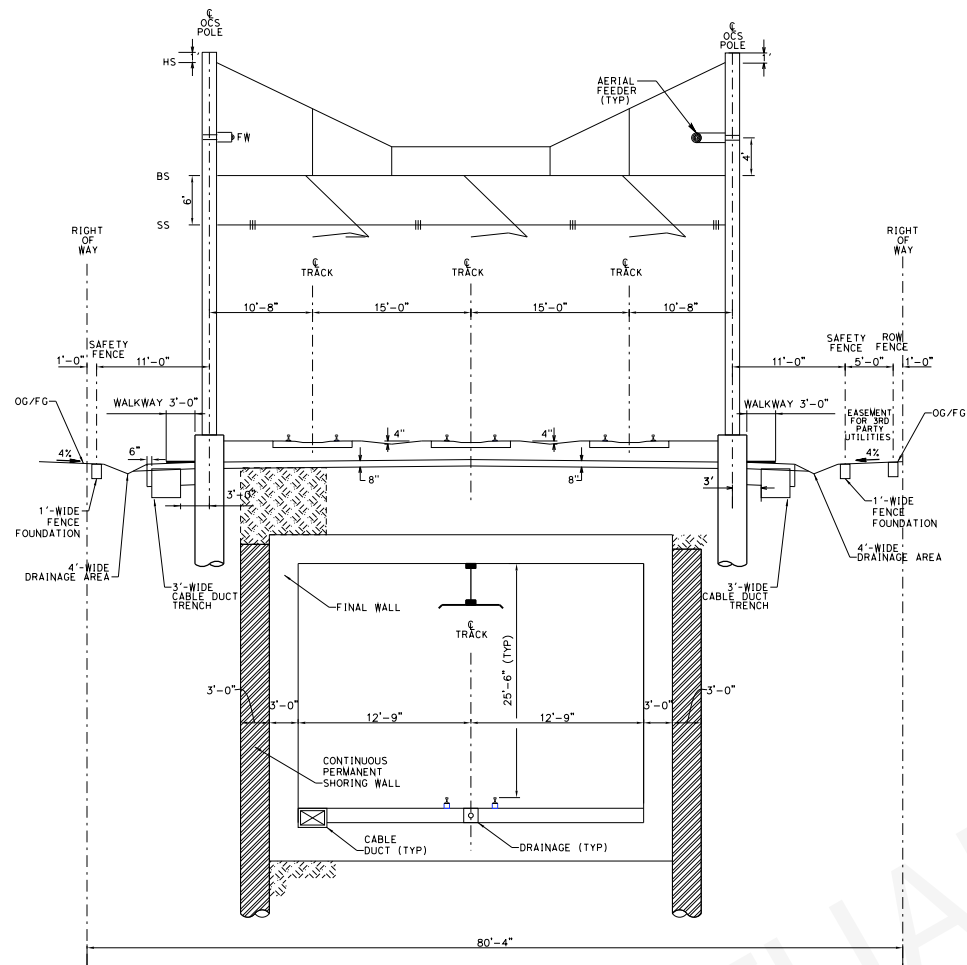
DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE



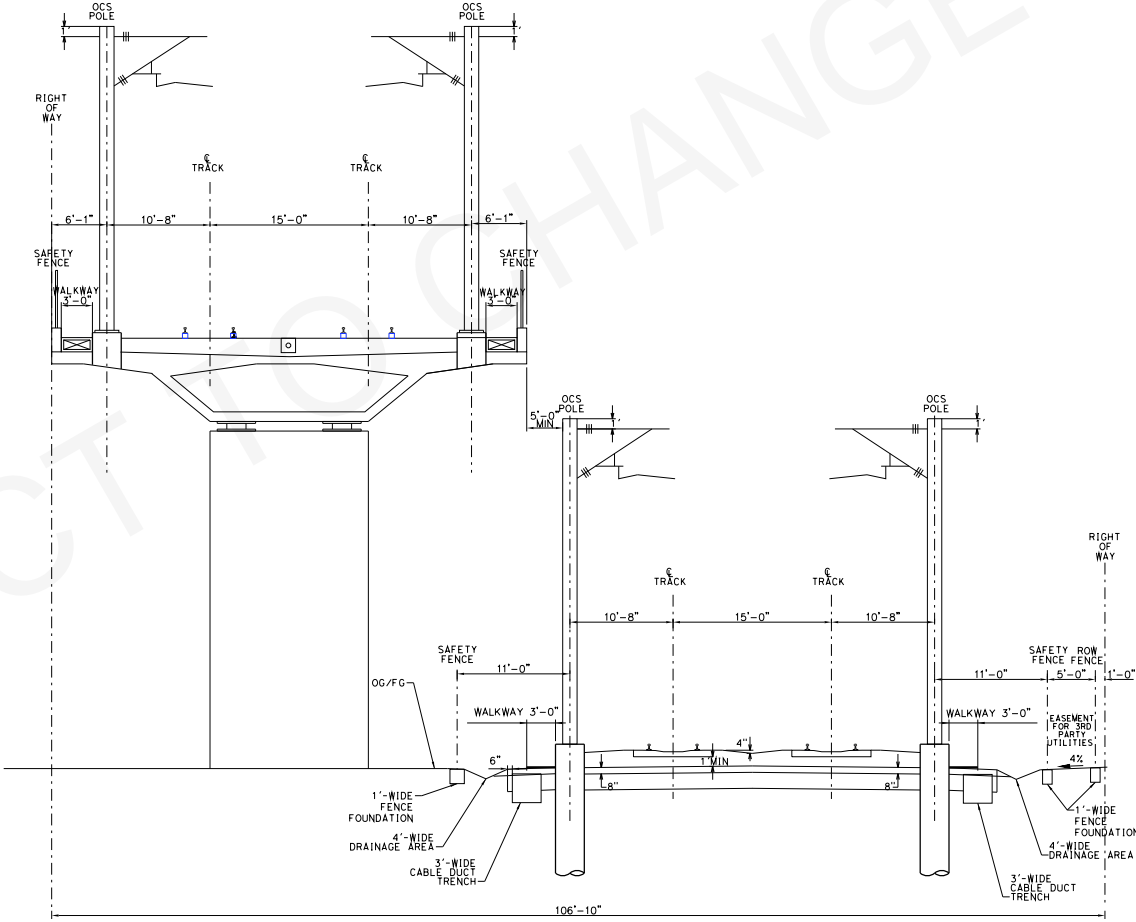
CALIFORNIA HIGH-SPEED TRAIN PROJECT

COMBINATION
DRAFT TYPICAL SECTIONS
03/24/2010

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 13 OF 24



TRIPLE TRACK AT GRADE WITH
SINGLE TRACK CUT/COVER BOX
(AG-CCB-2)



DOUBLE TRACK STRUCTURE WITH
DOUBLE TRACK AT GRADE
(S-AG-1)

- NOTES:
1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

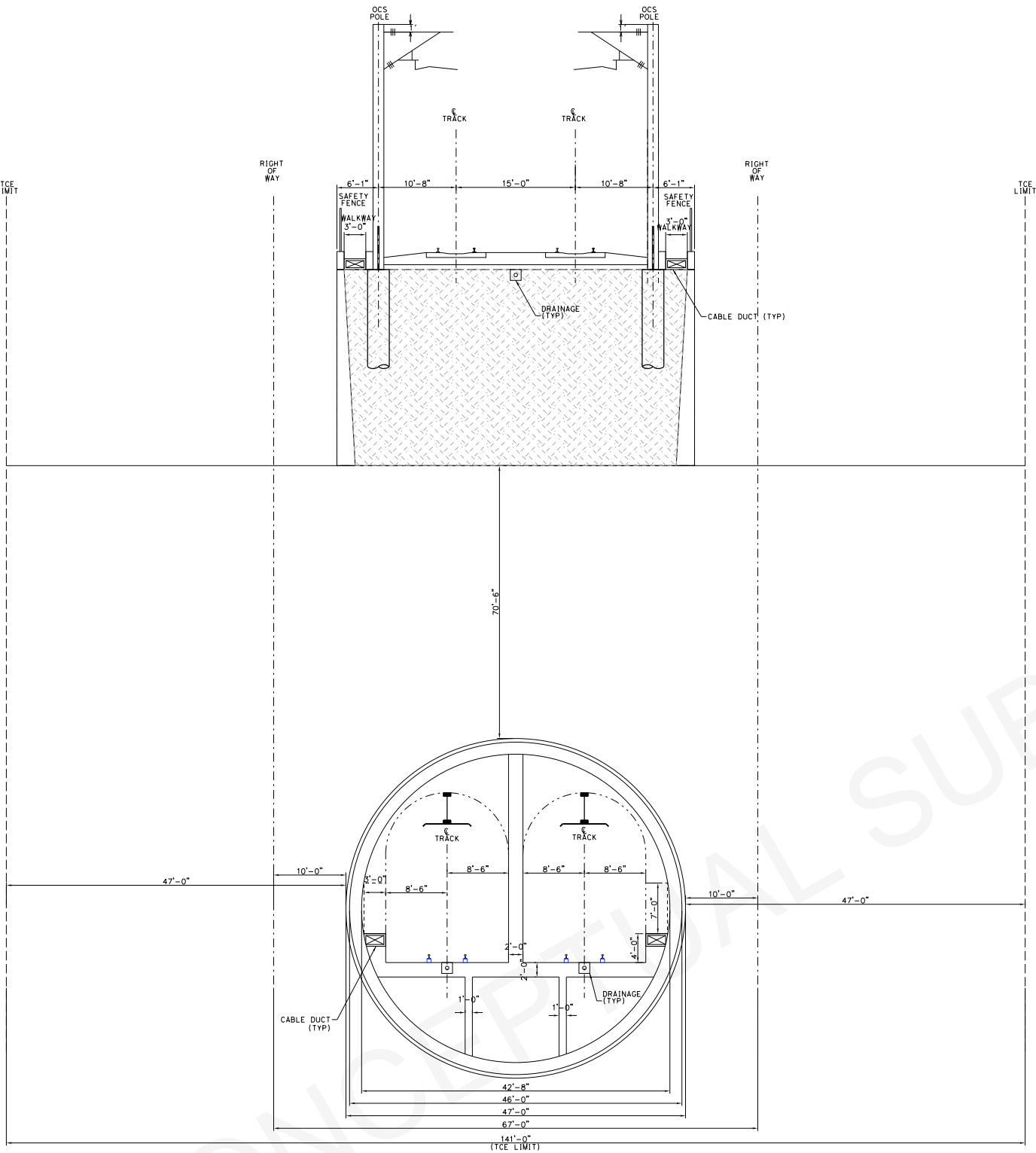


CALIFORNIA HIGH-SPEED TRAIN PROJECT

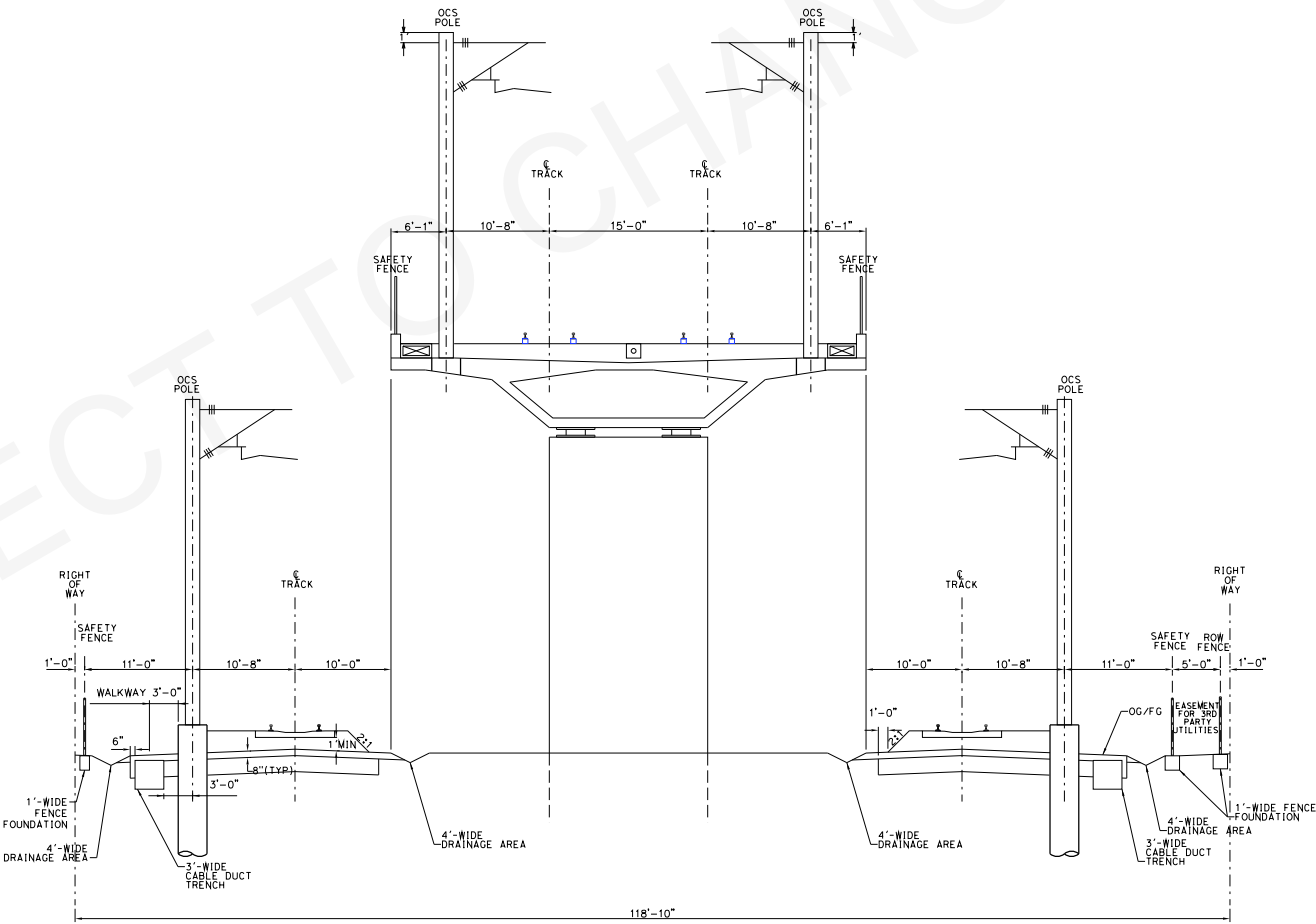
COMBINATION
DRAFT TYPICAL SECTIONS
03/24/2010

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 14 OF 24

- NOTES:
- FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



DOUBLE TRACK ON RETAINED FILL WITH
DOUBLE TRACK IN TUNNEL
(RF-T-2)



DOUBLE TRACK STRUCTURE WITH
TWO-SINGLE TRACK AT GRADE
(S-AG-2)



\$USER \$ DATE \$ TIME \$ \$FILES

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

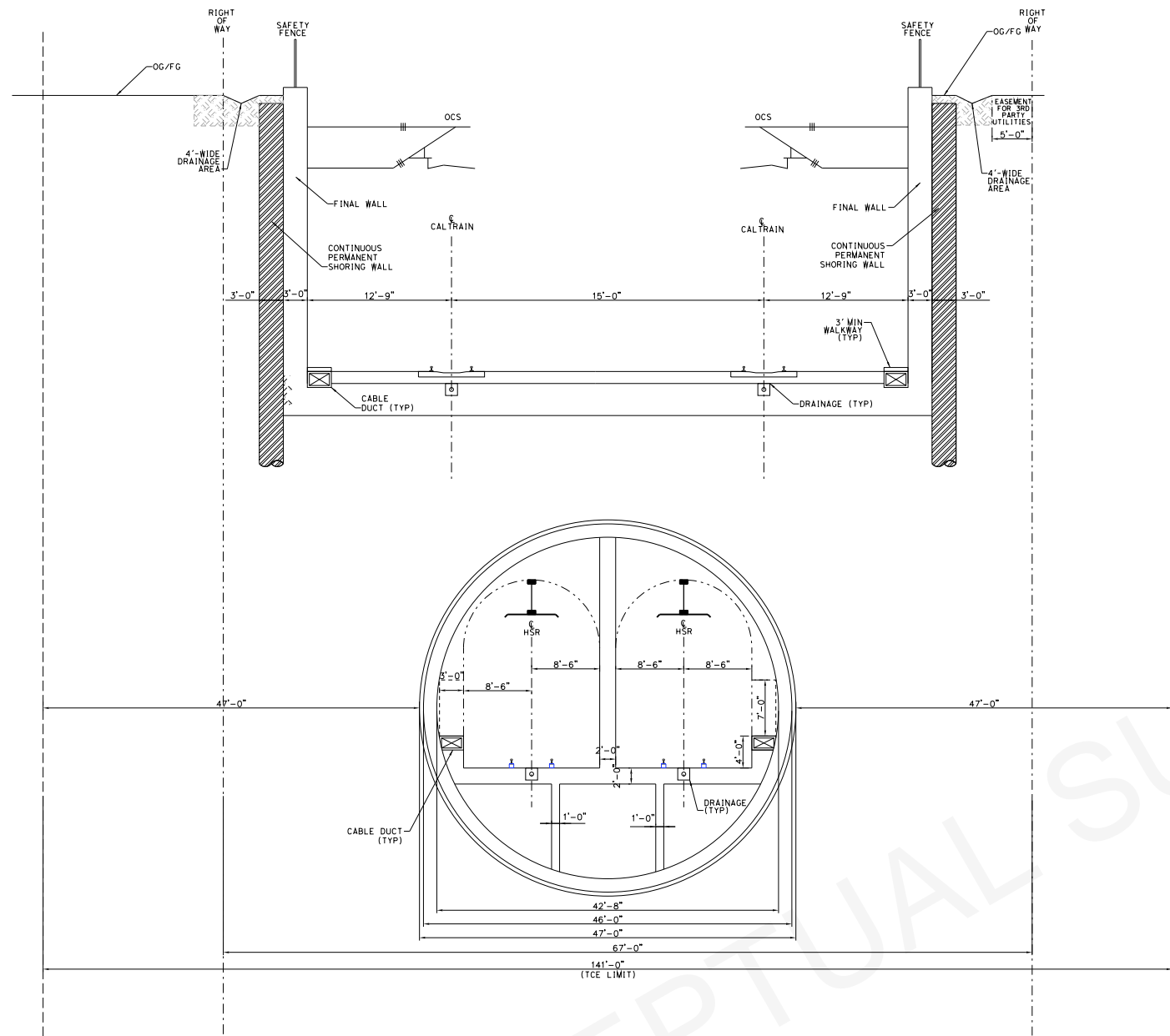


CALIFORNIA HIGH-SPEED RAIL AUTHORITY
FLY CALIFORNIA
Without ever leaving the ground.

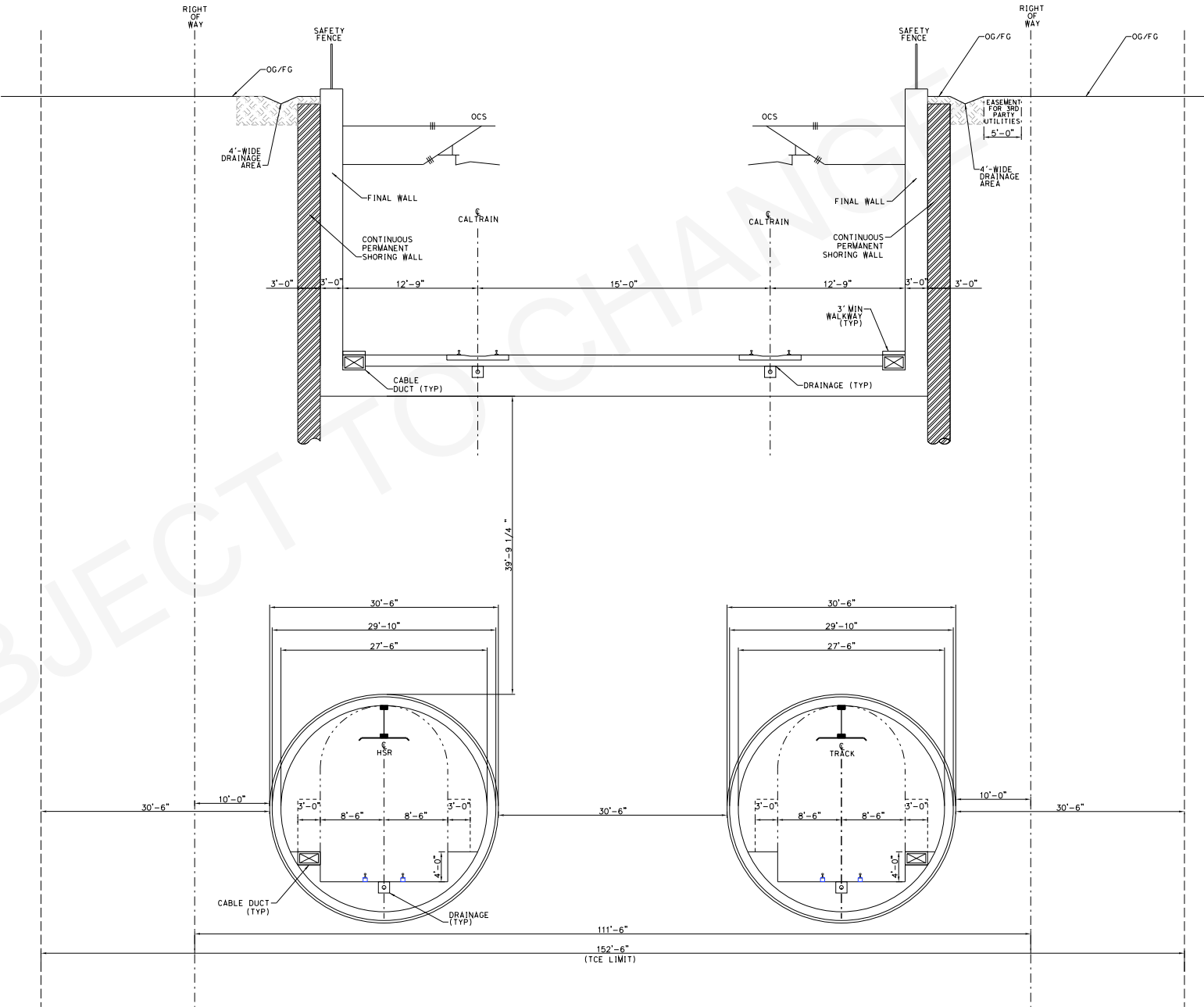
CALIFORNIA HIGH-SPEED TRAIN PROJECT

COMBINATION
DRAFT TYPICAL SECTIONS
03/24/2010

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 15 OF 24



DOUBLE TRACK TRENCH WITH
DOUBLE TRACK TUNNEL
(TNCH-T-1)



DOUBLE TRACK TRENCH WITH
TWO-SINGLE TRACK TUNNELS
(TNCH-T-2)



- NOTES:
1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



\$USER \$ DATE \$ TIME \$ \$FILES

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE




CALIFORNIA HIGH-SPEED RAIL AUTHORITY
FLY CALIFORNIA
Without ever leaving the ground.

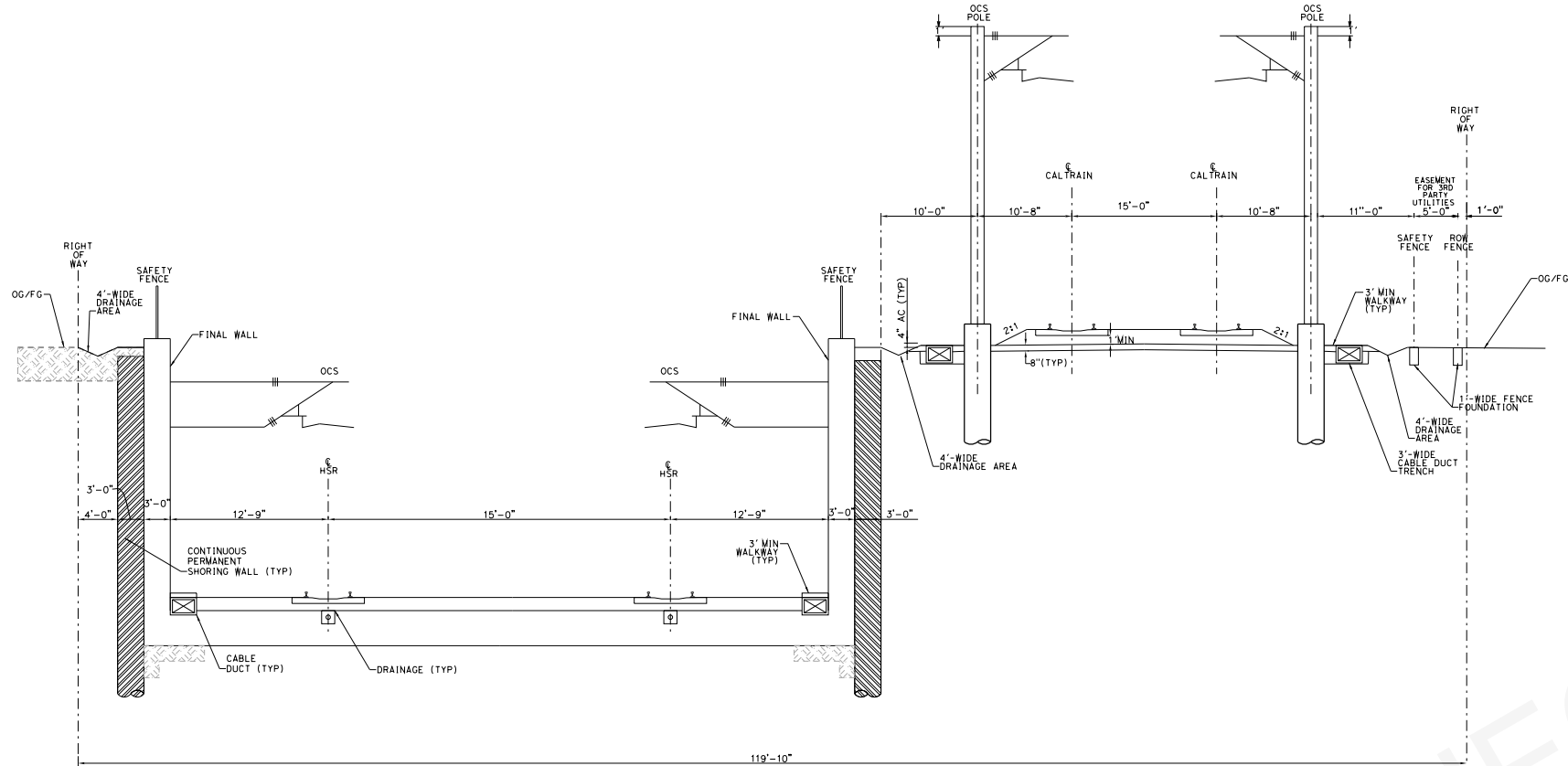
CALIFORNIA HIGH-SPEED TRAIN PROJECT

TRANSITION
DRAFT TYPICAL SECTIONS
03/24/2010

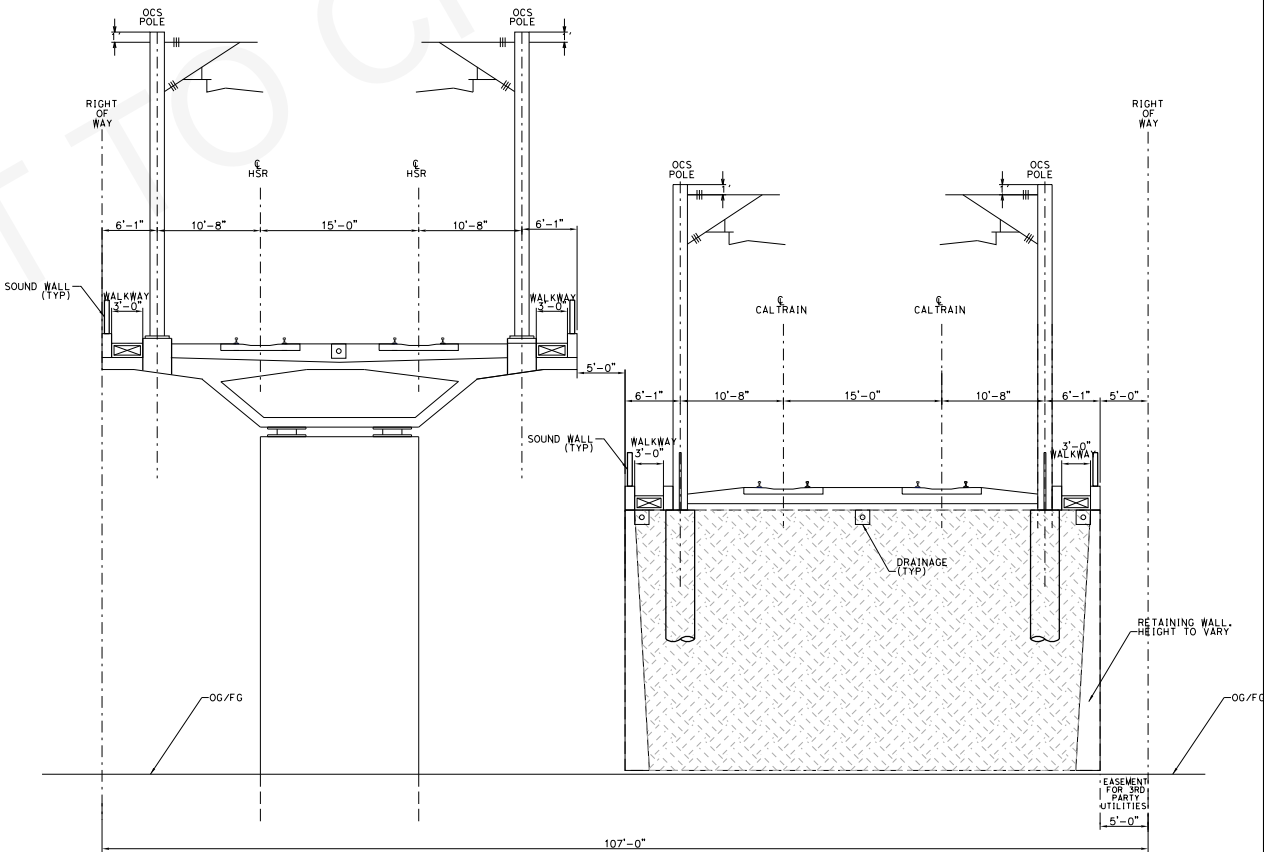
CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 16 OF 24



						DESIGNED BY				 CALIFORNIA HIGH-SPEED RAIL AUTHORITY FLY CALIFORNIA <i>Without ever leaving the ground.</i>	CALIFORNIA HIGH-SPEED TRAIN PROJECT TRANSITION DRAFT TYPICAL SECTIONS 03/24/2010	CONTRACT NO.
						DRAWN BY						DRAWING NO.
						CHECKED BY						
						IN CHARGE						SCALE
						DATE						SHEET NO.
REV	DATE	BY	CHK	APP	DESCRIPTION							18 OF 24



DOUBLE TRACK TRENCH WITH
DOUBLE TRACK AT GRADE
(AG-TNCH-2)



DOUBLE TRACK STRUCTURE
DOUBLE TRACK RETAIN FILL
(S-RF-2)



- NOTES:
1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.

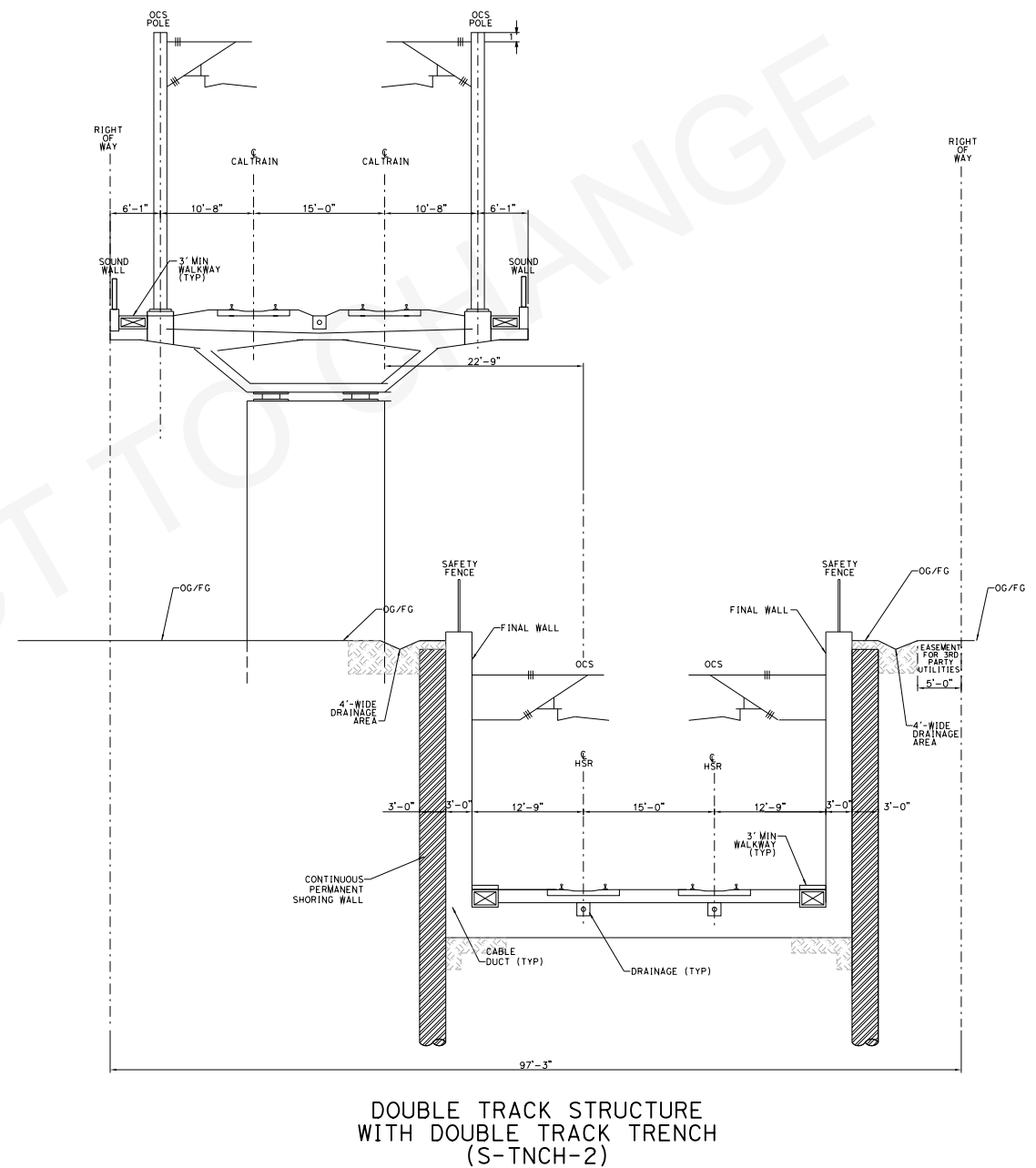
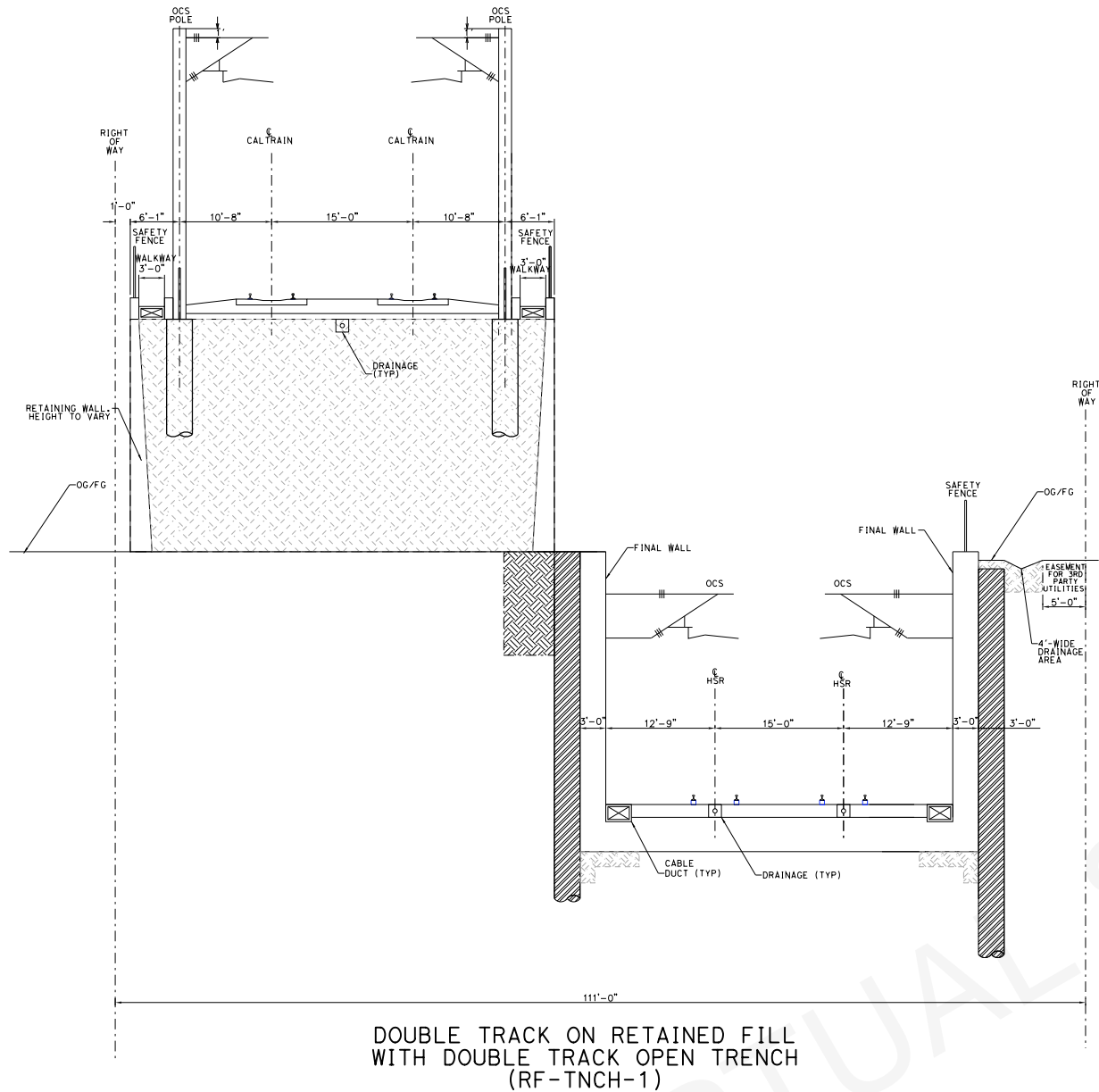
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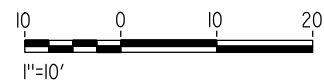
DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE



CALIFORNIA HIGH-SPEED TRAIN PROJECT		CONTRACT NO.
TRANSITION DRAFT TYPICAL SECTIONS 03/24/2010		DRAWING NO.
		SCALE
		SHEET NO. 19 OF 24



- NOTES:
- FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



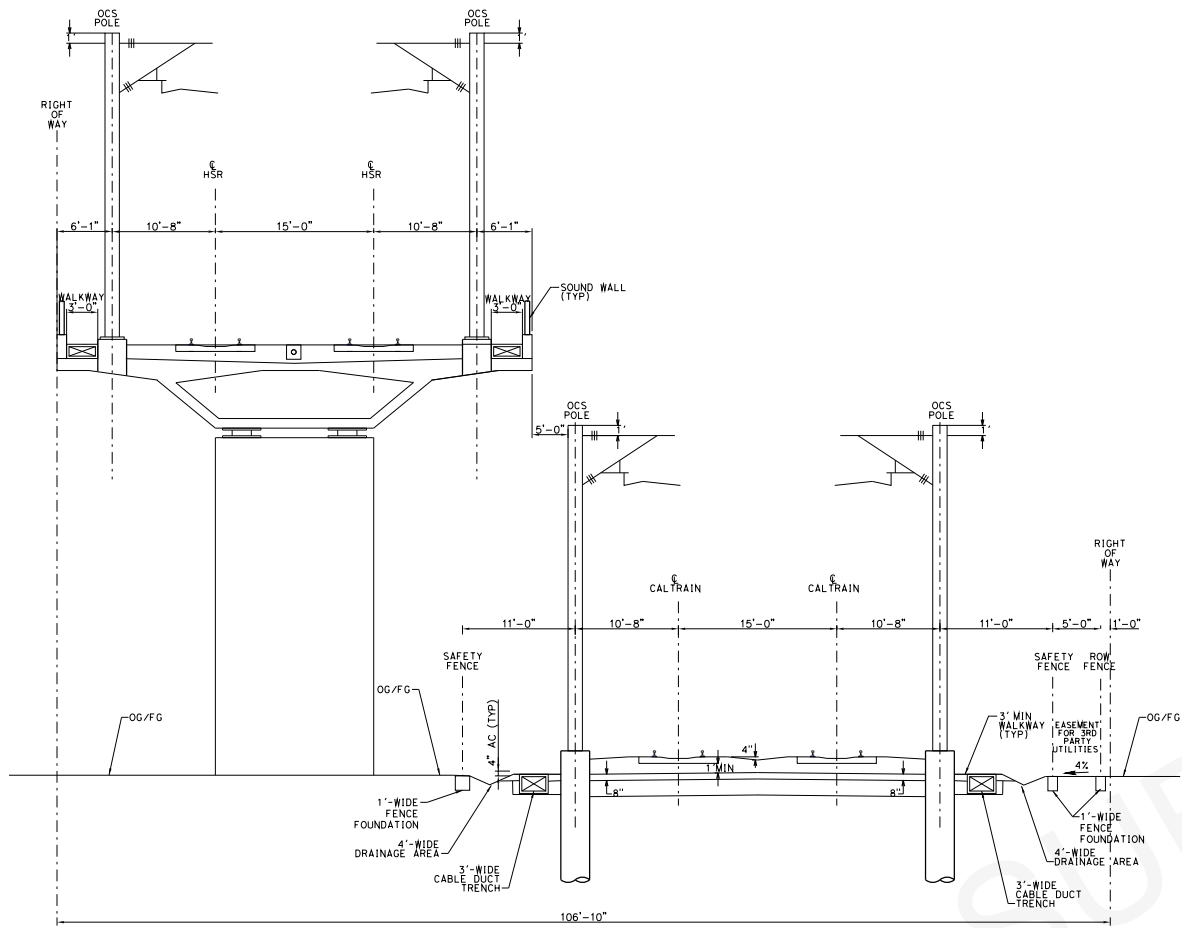
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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE



CALIFORNIA HIGH-SPEED TRAIN PROJECT		CONTRACT NO.
TRANSITION DRAFT TYPICAL SECTIONS 03/24/2010		DRAWING NO.
		SCALE
		SHEET NO. 20 OF 24



DOUBLE TRACK STRUCTURE WITH
DOUBLE TRACK AT GRADE
(S-AG-3)

- NOTES:
- 1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.

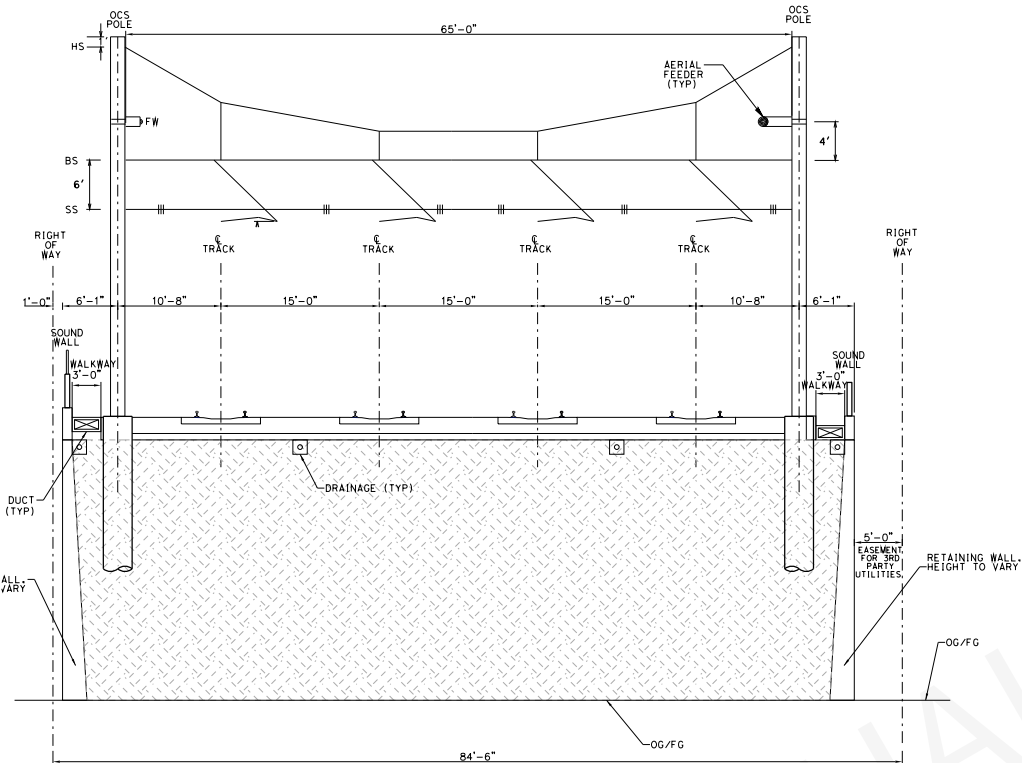


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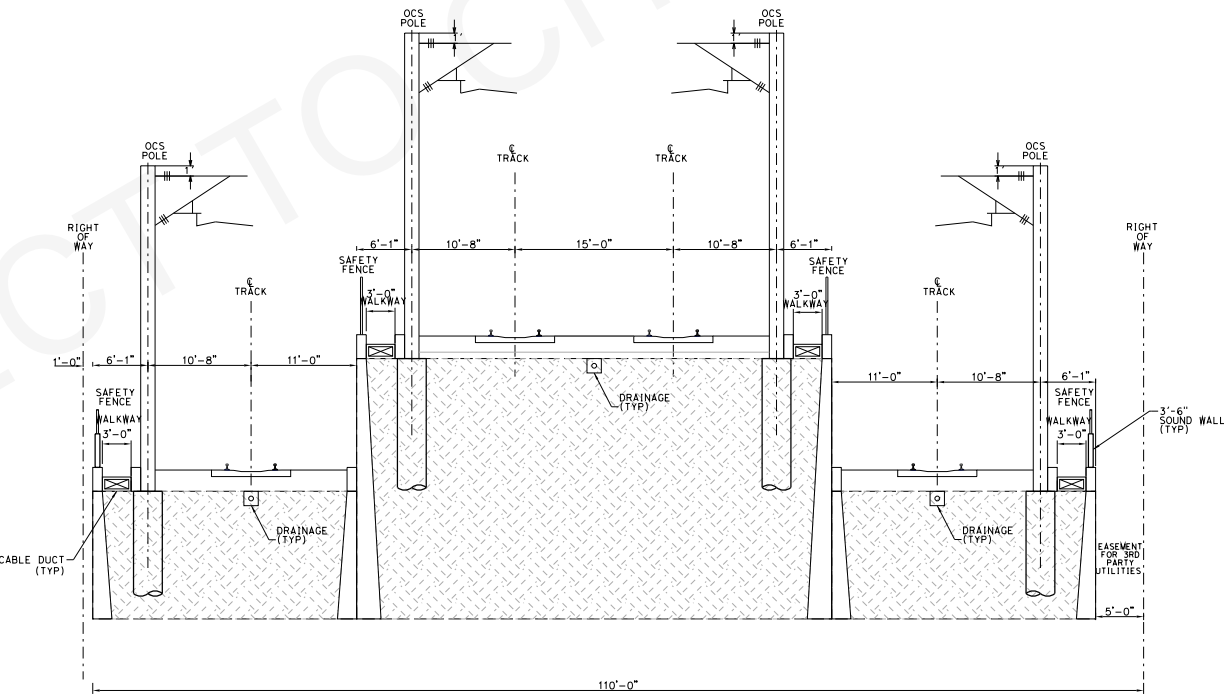
DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE



CALIFORNIA HIGH-SPEED TRAIN PROJECT
TRANSITION DRAFT TYPICAL SECTIONS 03/24/2010
CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 21 OF 24



FOUR TRACK ELEVATED ON RETAINED FILL
(RF-1)



TWO-SINGLE TRACK ON RETAINED FILL WITH
DOUBLE TRACK ON RETAINED FILL
(RF-2)

- NOTES:
1. FOR TYPICAL SECTIONS AT ROADWAY CROSSINGS REFER TO SHEET 24.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE




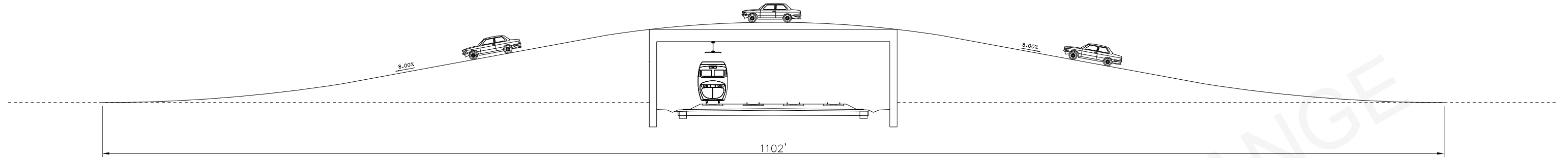
CALIFORNIA HIGH-SPEED TRAIN PROJECT

RETAINED FILL
DRAFT TYPICAL SECTIONS
03/24/2010

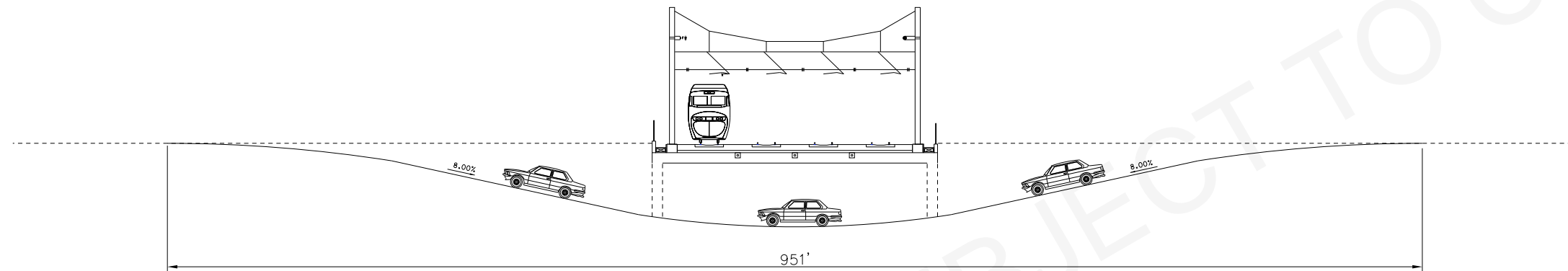
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DRAWING NO.
SCALE
SHEET NO. 22 OF 24



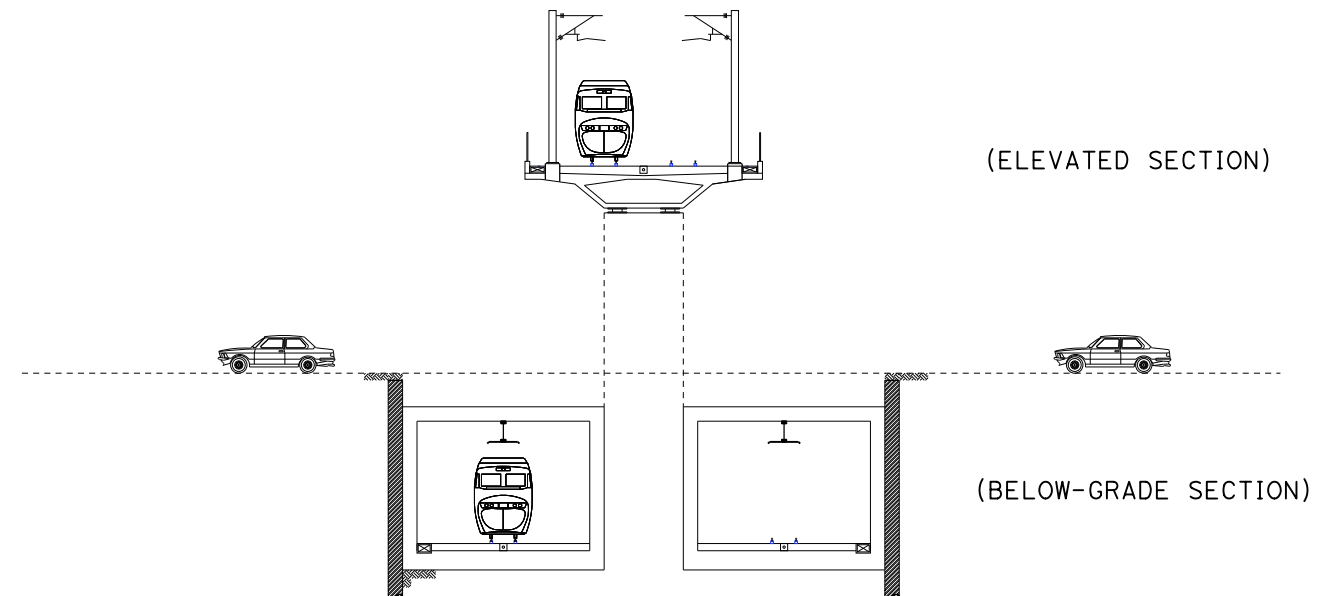
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						CHECKED BY					SCALE		
						IN CHARGE					SHEET NO.		
						DATE					23 OF 24		
REV	DATE	BY	CHK	APP	DESCRIPTION								



ROAD OVER RAIL
(CR-1)



ROAD UNDER RAIL
(CR-2)



NOTE:

REFER TO TYPICAL SECTIONS SHEETS FOR THE DIFFERENT AT-GRADE,
BELOW-GRADE AND ELEVATED SECTIONS OPTIONS.

\$USER \$ DATE \$ \$TIME \$ \$FILES \$

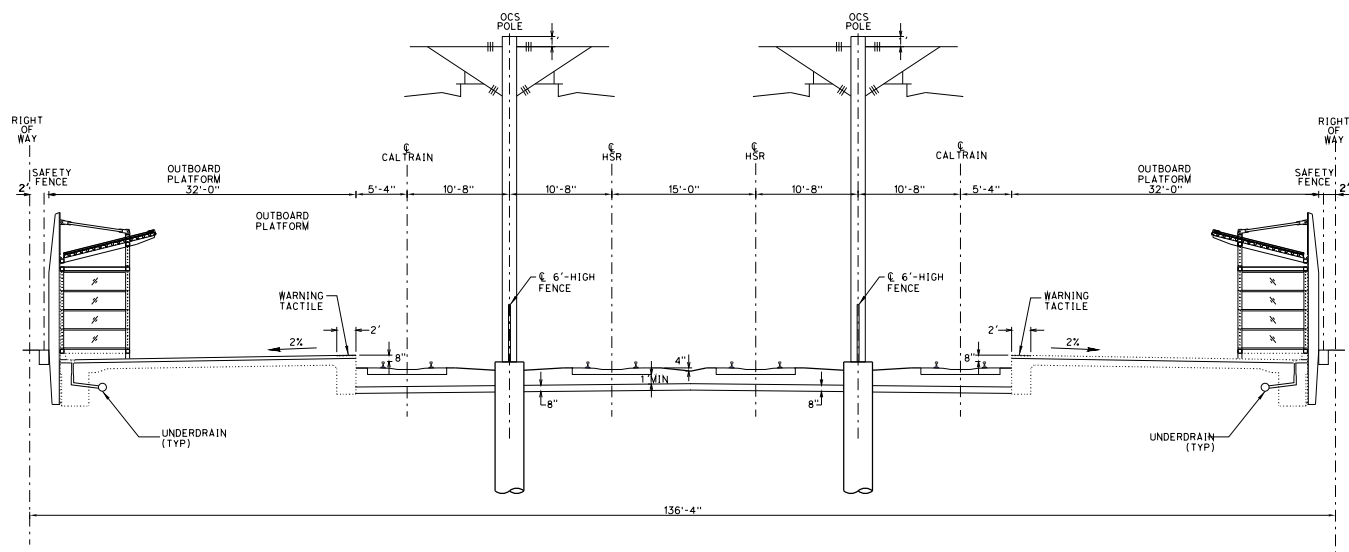
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DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

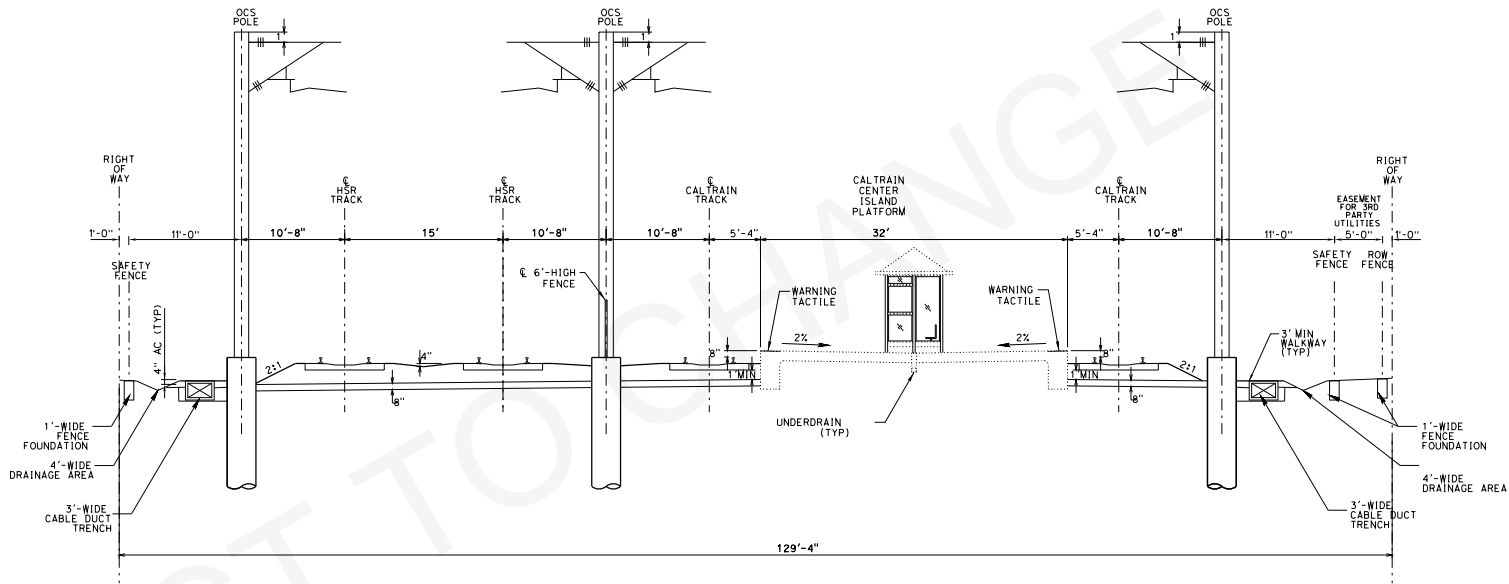


CALIFORNIA HIGH-SPEED TRAIN PROJECT	
CROSSING DRAFT TYPICAL SECTIONS 03/24/2010	

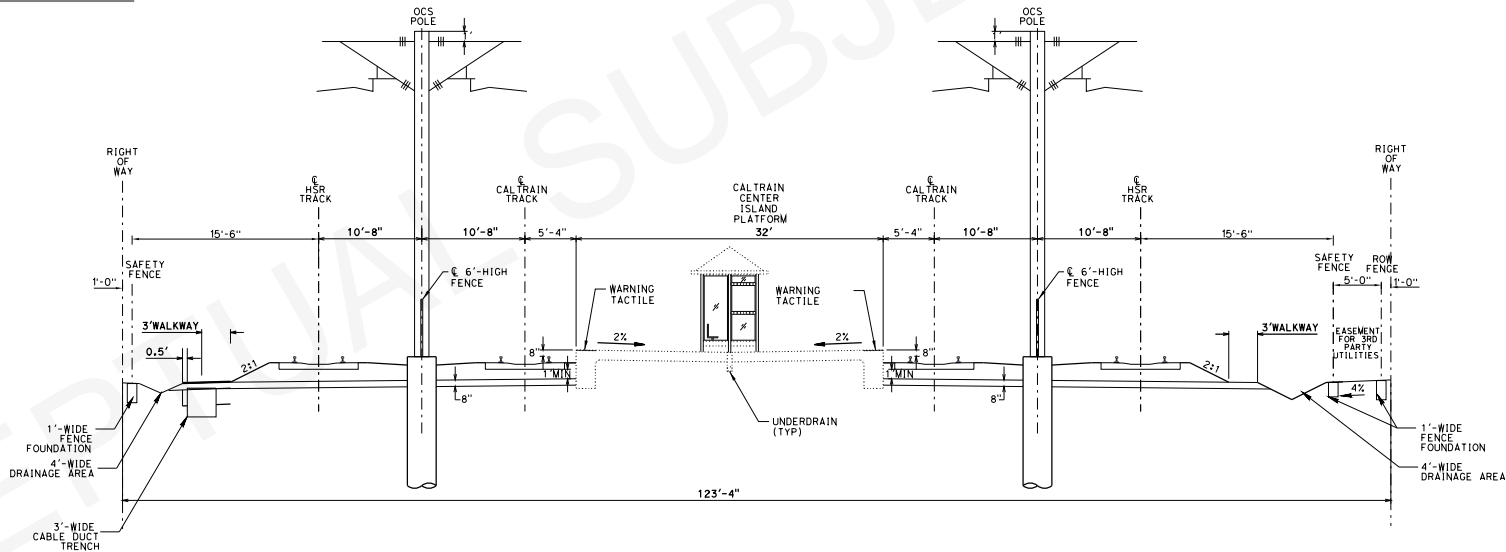
CONTRACT NO.
DRAWING NO.
SCALE NTS
SHEET NO. 24 OF 24



TYPICAL CALTRAIN-ONLY STATION
OUTBOARD PLATFORM
(STA-1)



TYPICAL CALTRAIN-ONLY STATION
CENTER ISLAND PLATFORM
(STA-2)



TYPICAL CALTRAIN-ONLY STATION
CENTER ISLAND PLATFORM
(STA-3)

NOT TO SCALE

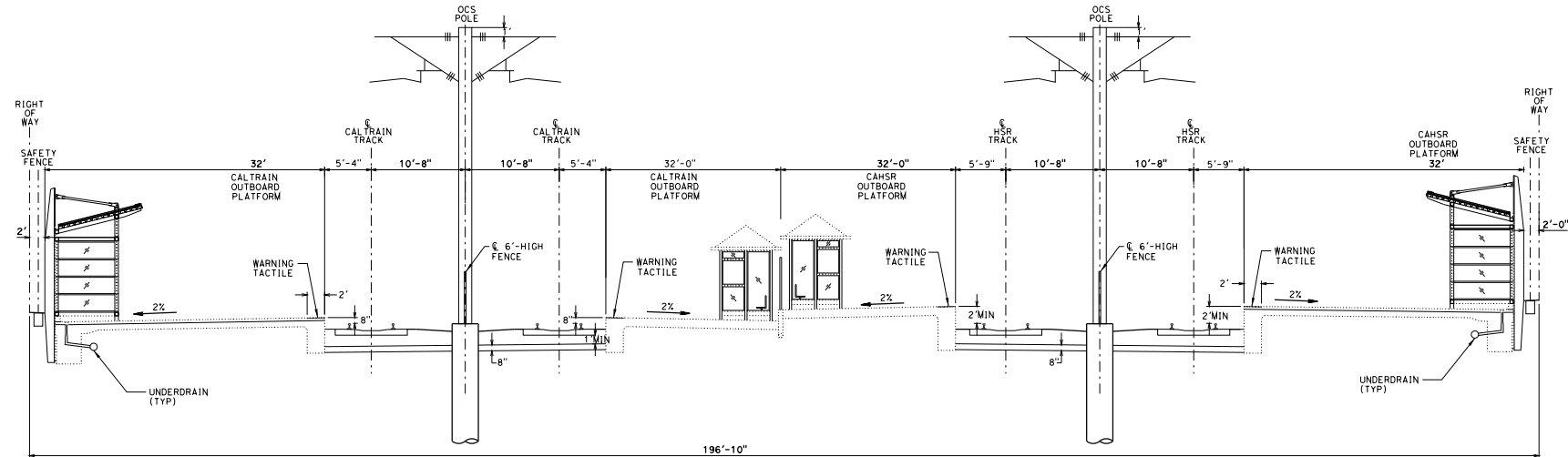
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REV	DATE	BY	CHK	APP	DESCRIPTION

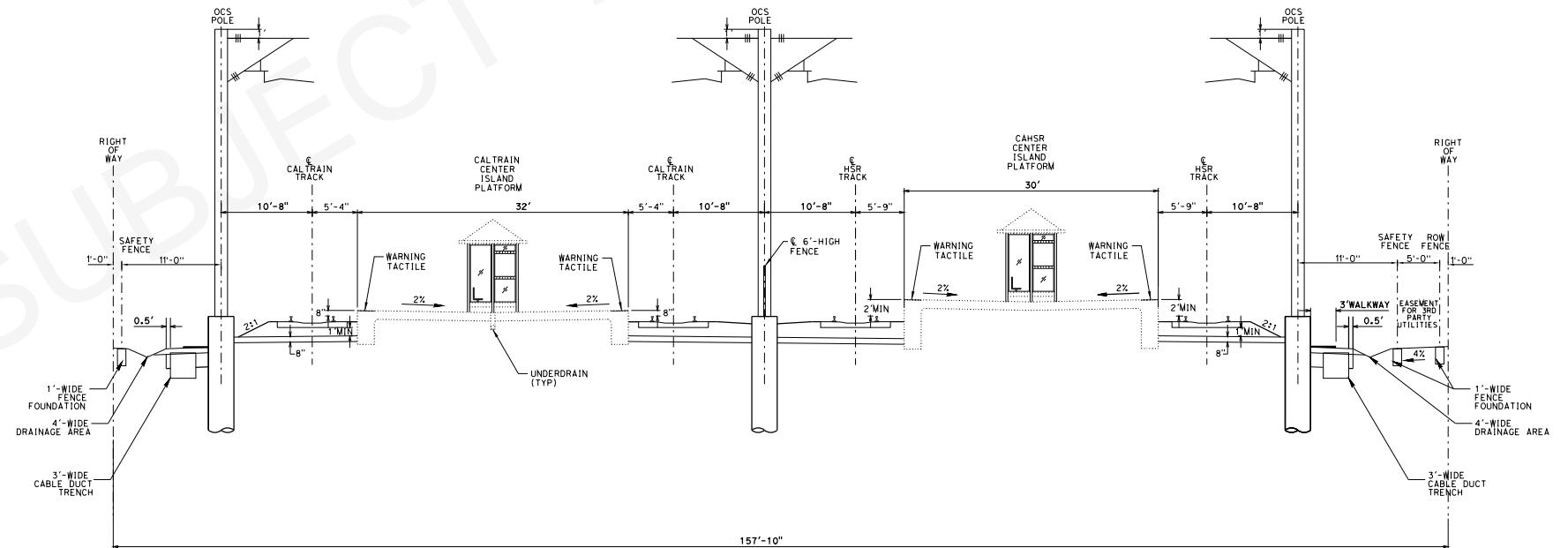
DESIGNED BY
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IN CHARGE
DATE



CALIFORNIA HIGH-SPEED TRAIN PROJECT		CONTRACT NO.
STATIONS DRAFT TYPICAL SECTIONS 03/24/2010		DRAWING NO.
		SCALE
		SHEET NO. 1 OF 9



TYPICAL CALTRAIN/CAHSR STATION
OUTBOARD PLATFORM
(STA-4)



TYPICAL CALTRAIN/CAHSR STATION
CENTER ISLAND PLATFORM
(STA-5)

NOT TO SCALE

\$USER \$ DATE \$ TIME \$ \$FILES

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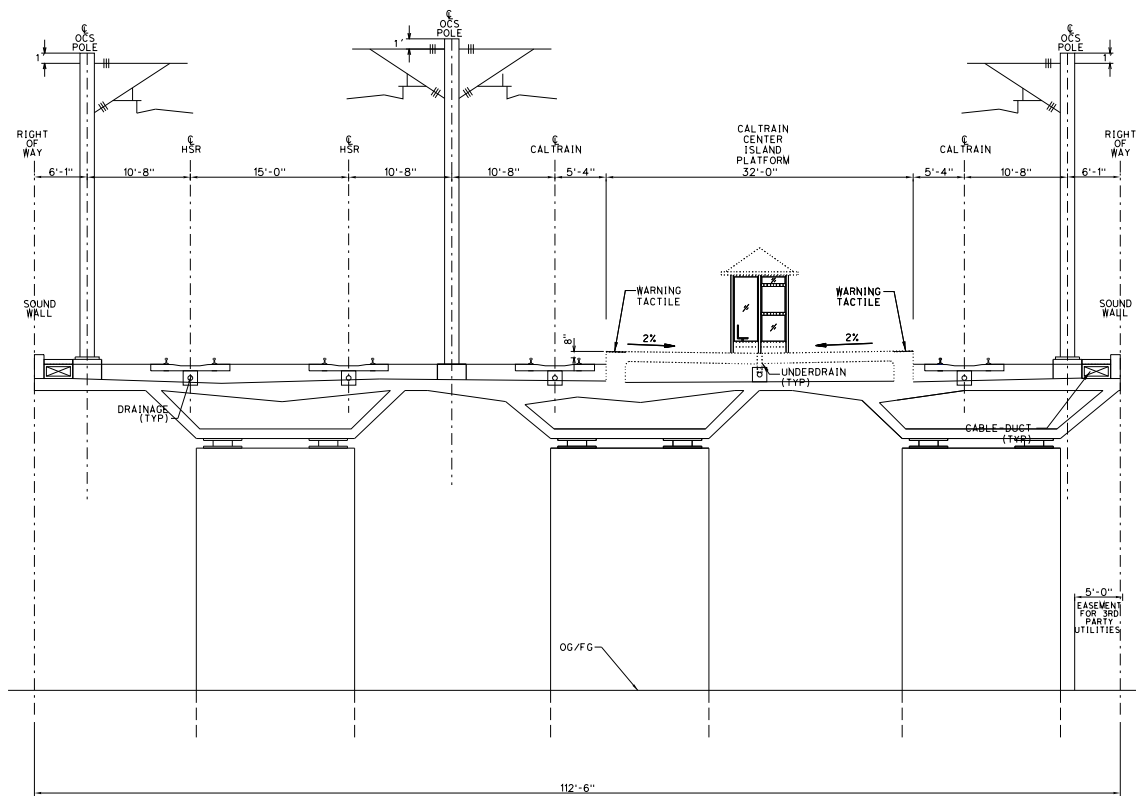
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DRAWN BY
CHECKED BY
IN CHARGE
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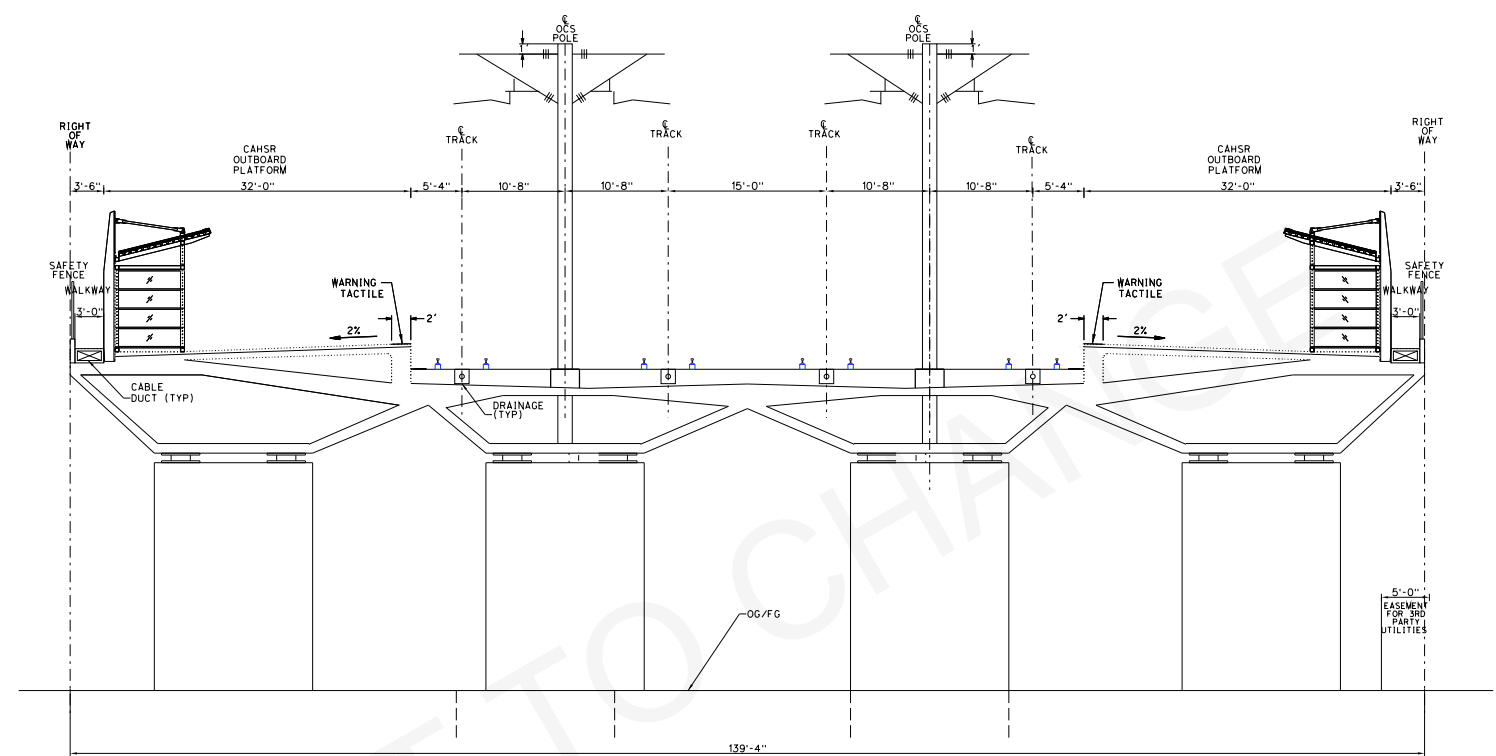
CALIFORNIA HIGH-SPEED TRAIN PROJECT

STATIONS
DRAFT TYPICAL SECTIONS
03/24/2010

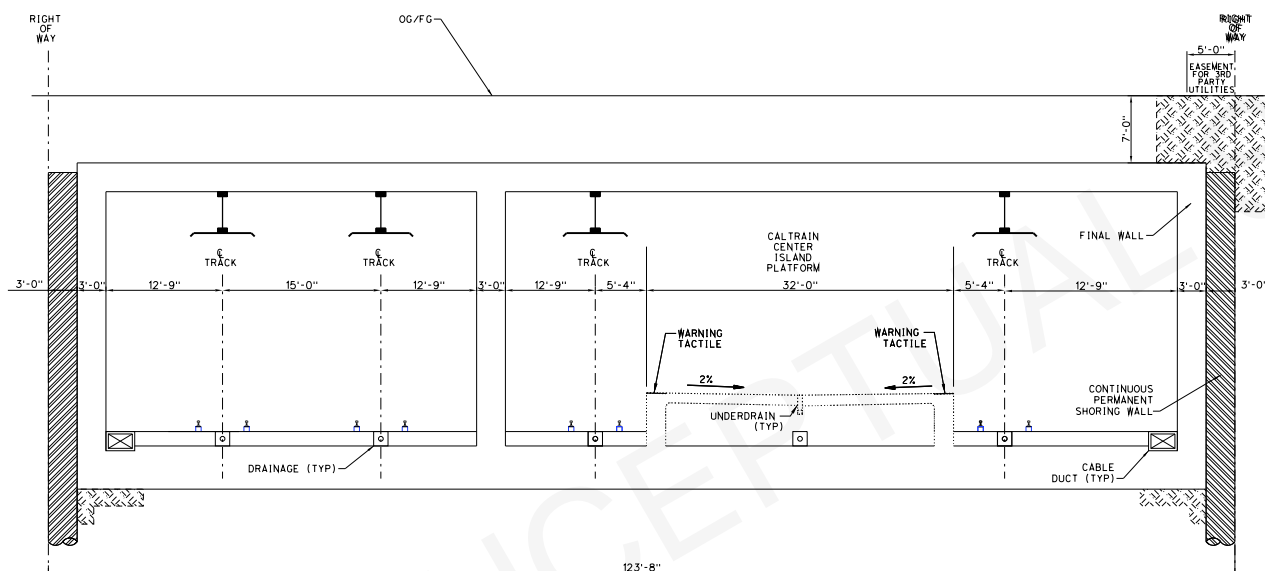
CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 2 OF 9



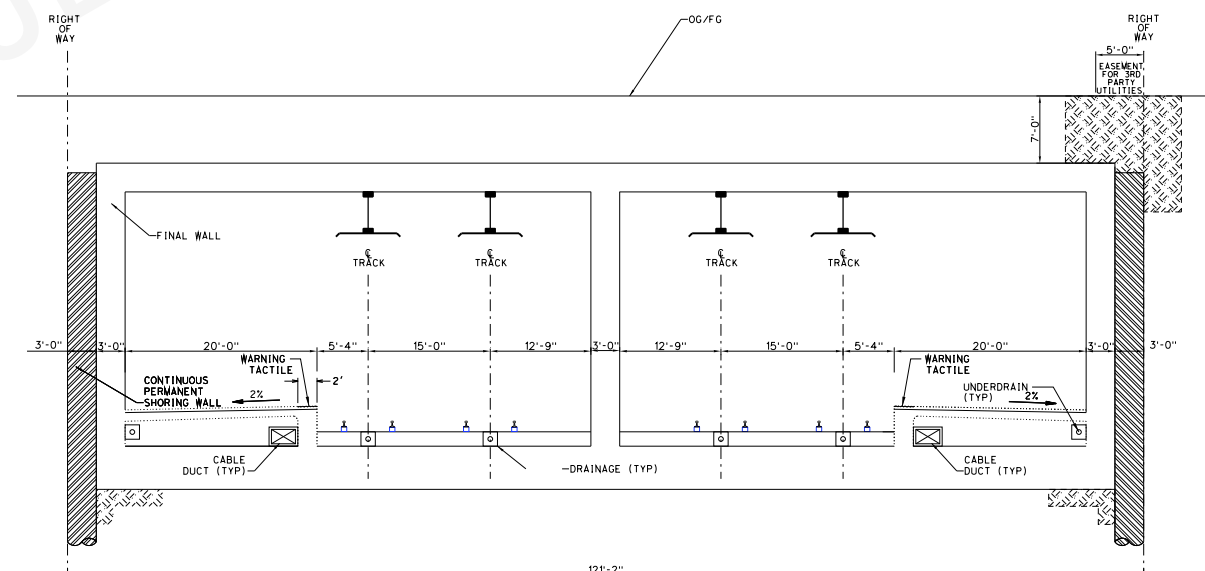
TYPICAL CALTRAIN-ONLY RAISED STATION
CENTER ISLAND PLATFORM
(STA-6)



TYPICAL CALTRAIN-ONLY RAISED STATION
OUTBOARD PLATFORM
(STA-7)



TYPICAL CALTRAIN-ONLY TUNNEL STATION
CENTER ISLAND PLATFORM
(STA-8)



TYPICAL CALTRAIN-ONLY TUNNEL STATION
OUTBOARD PLATFORM
(STA-9)

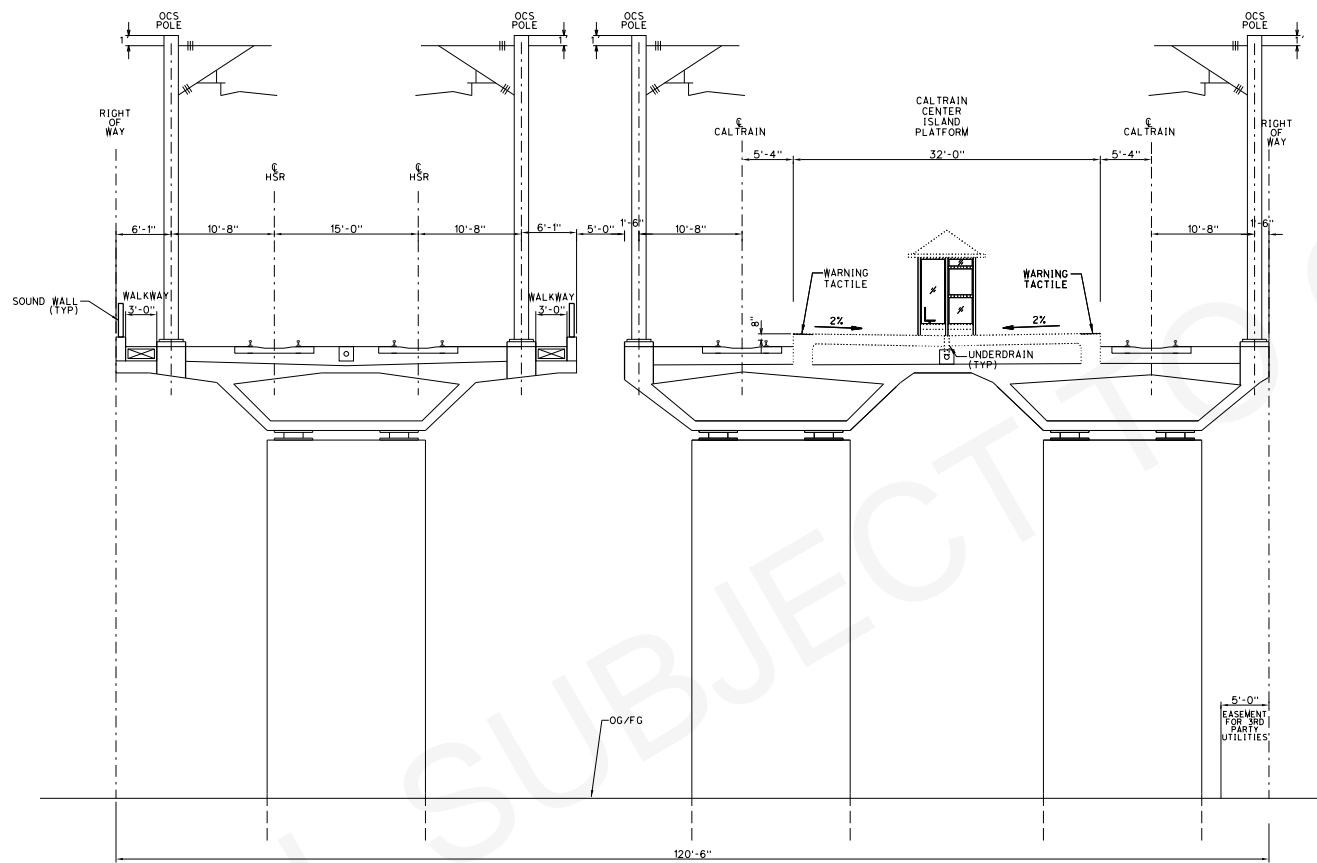
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REV	DATE	BY	CHK	APP	DESCRIPTION

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IN CHARGE
DATE



CALIFORNIA HIGH-SPEED TRAIN PROJECT		CONTRACT NO.
STATIONS DRAFT TYPICAL SECTIONS 03/24/2010		DRAWING NO.
		SCALE
		SHEET NO. 3 OF 9



TYPICAL CALTRAIN-ONLY ELEVATED STATION
CENTER ISLAND PLATFORM
(STA-10)



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE



CALIFORNIA HIGH-SPEED RAIL AUTHORITY

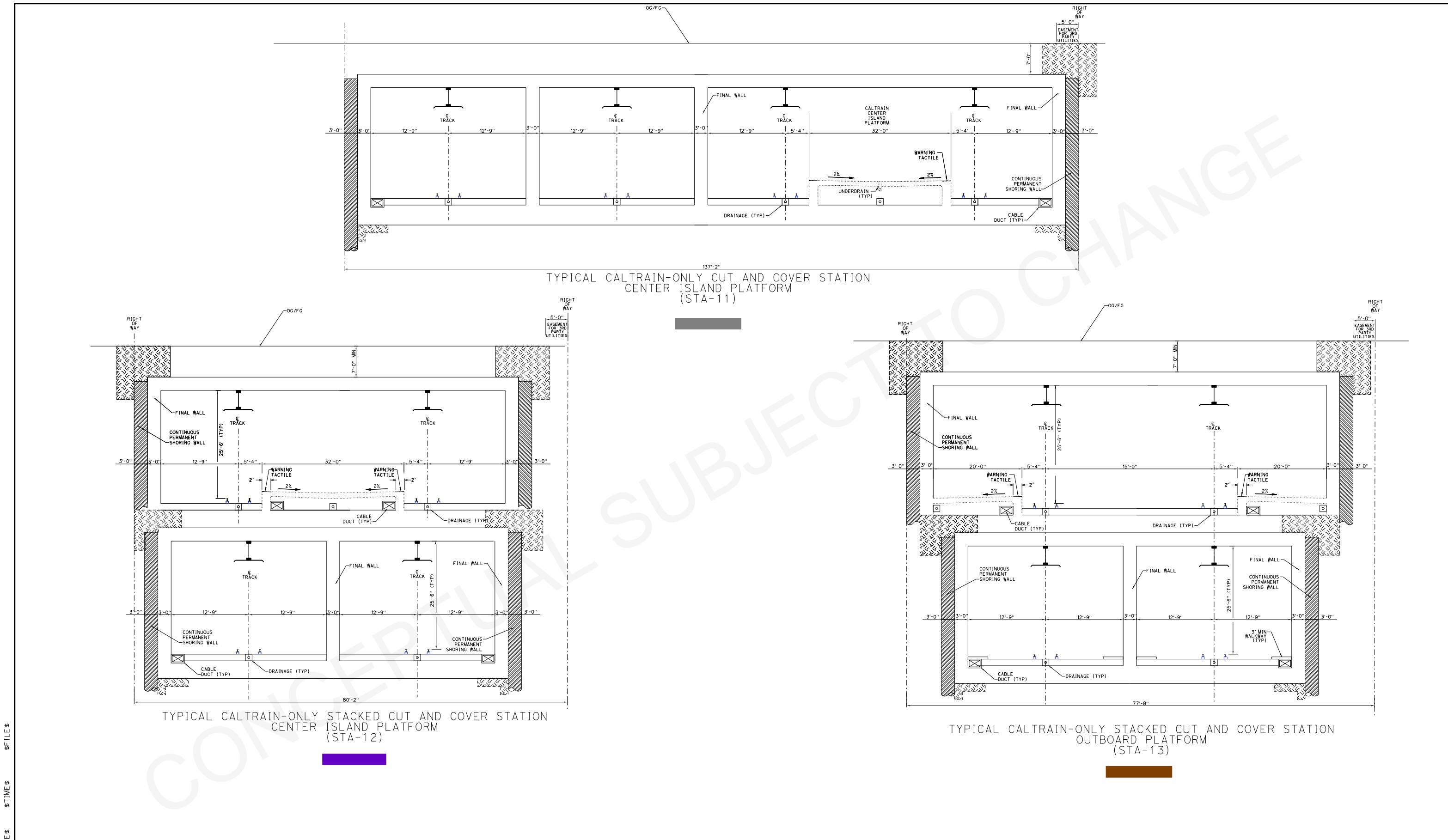
FLY CALIFORNIA

Without ever leaving the ground.

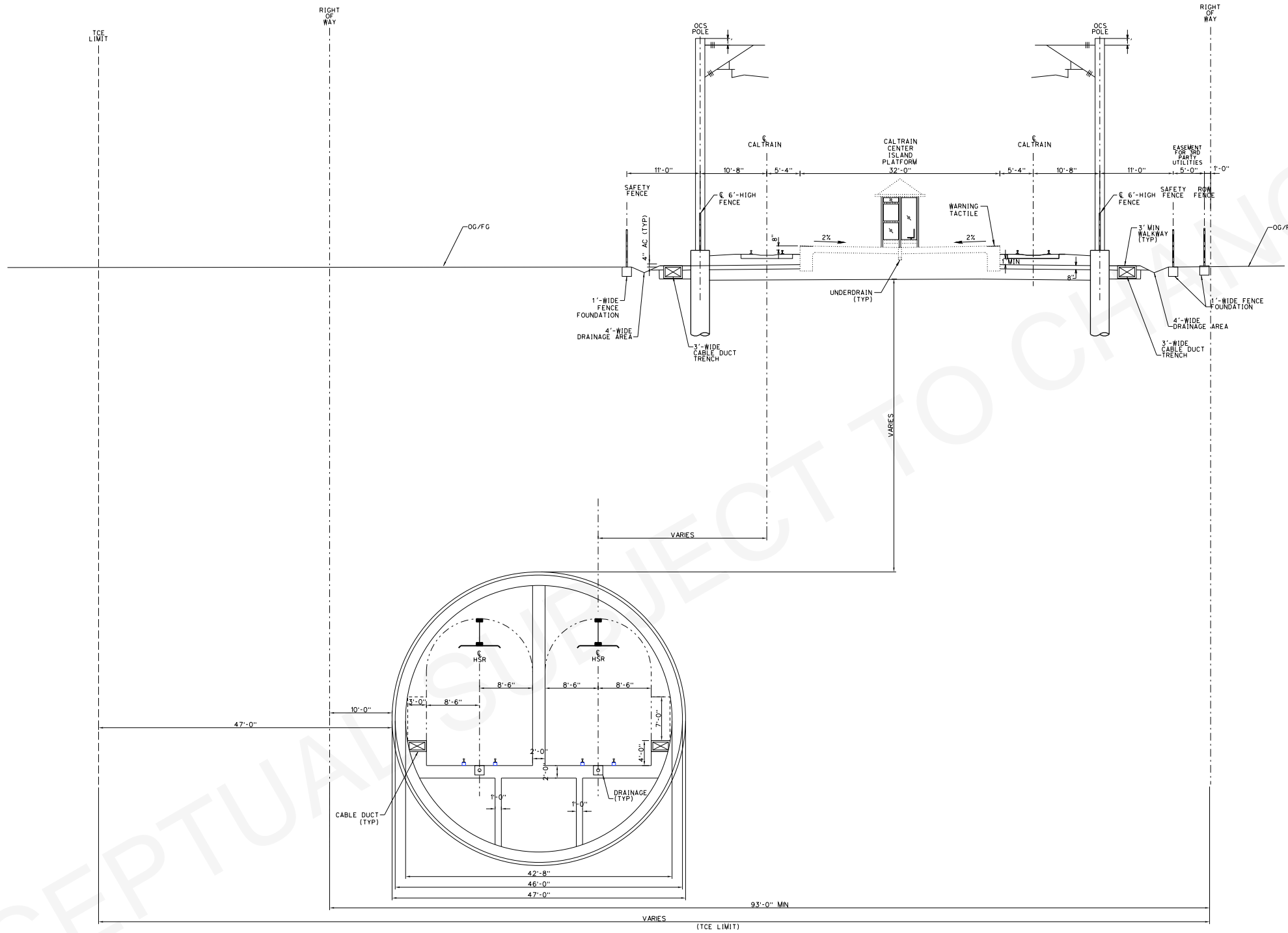
CALIFORNIA HIGH-SPEED TRAIN PROJECT

STATIONS
DRAFT TYPICAL SECTIONS
03/24/2010

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 4 OF 9



\$/USER \$ DATE \$ \$/TIME \$ \$/FILES \$



TYPICAL CALTRAIN-ONLY AT GRADE STATION
CENTER ISLAND PLATFORM WITH HSR TUNNEL
(STA-14)

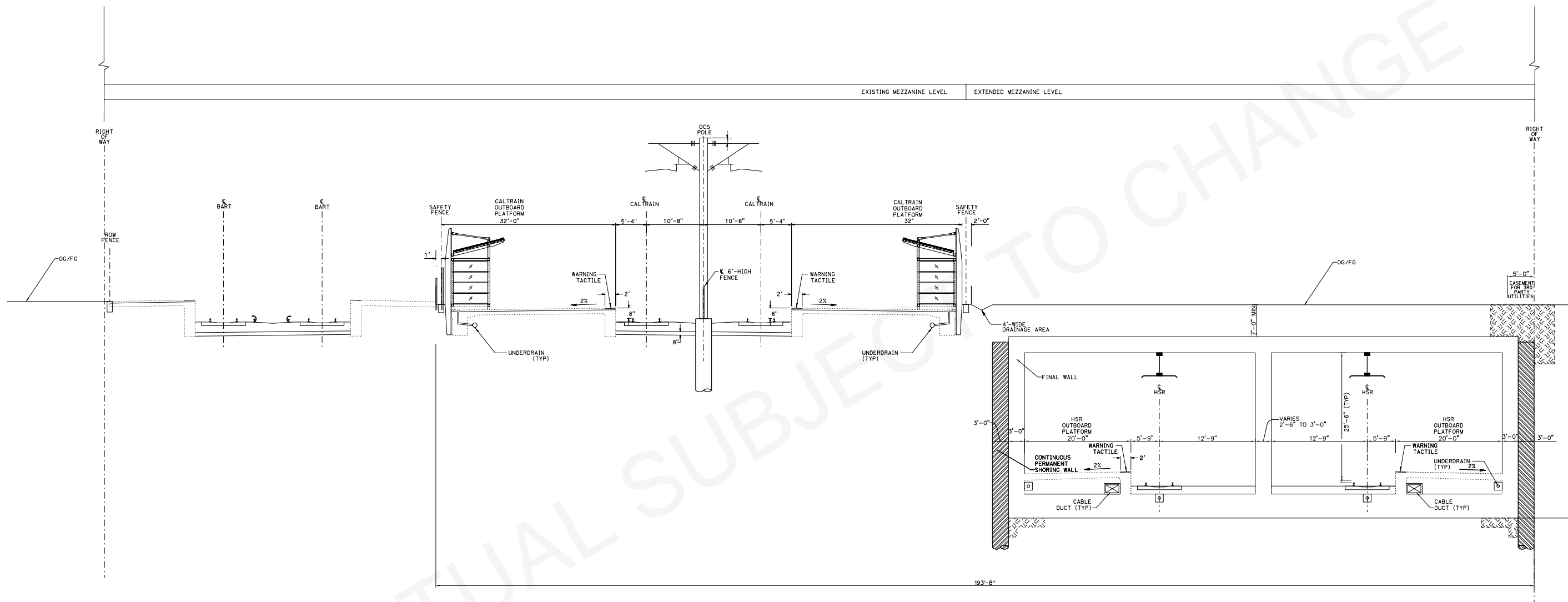


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DATE



CALIFORNIA HIGH-SPEED TRAIN PROJECT
STATIONS DRAFT TYPICAL SECTIONS 03/24/2010
CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 6 OF 9



TYPICAL CALTRAIN AT GRADE OUTBOARD STATION
WITH HSR CUT AND COVER BOX OUTBOARD STATION
(STA-16)

HST MILLBRAE STATION

\$USER \$ DATE \$ TIME \$ \$FILE\$

REV	DATE	BY	CHK	APP	DESCRIPTION

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IN CHARGE
DATE

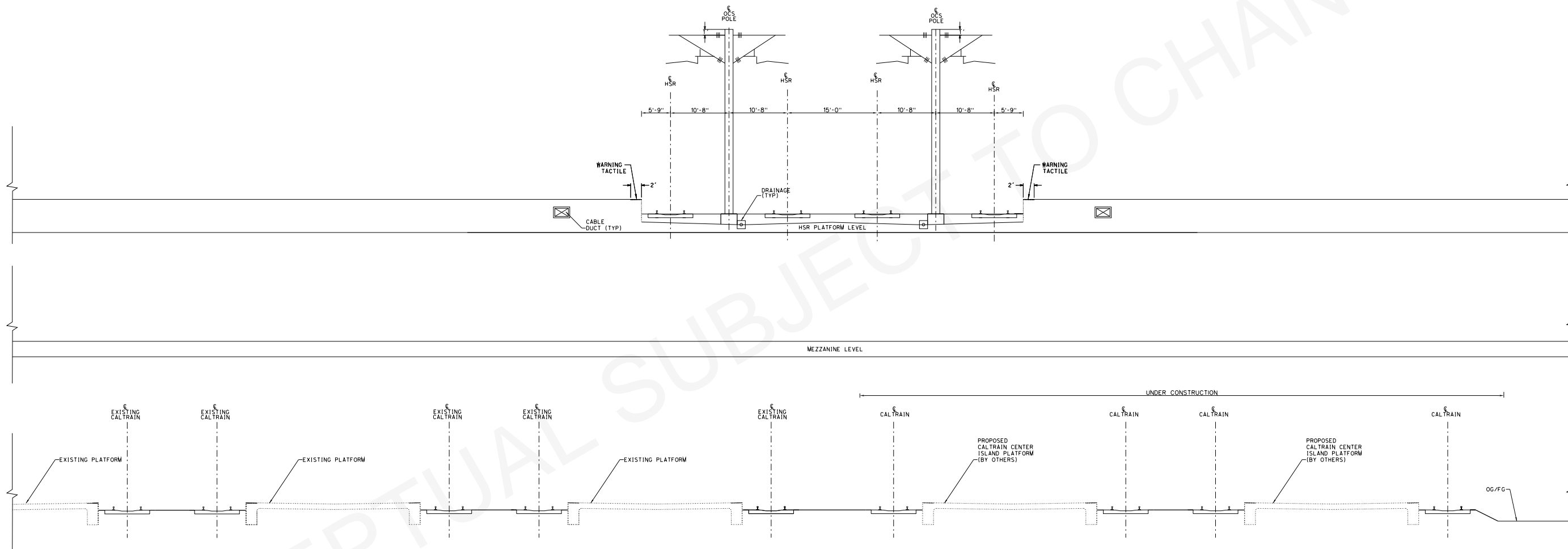


CALIFORNIA HIGH-SPEED RAIL AUTHORITY
FLY CALIFORNIA
Without ever leaving the ground.

CALIFORNIA HIGH-SPEED TRAIN PROJECT

STATIONS
DRAFT TYPICAL SECTIONS
03/24/2010

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 8 OF 9



TYPICAL HSR 4-TRACK RAISED STRUCTURE OUTBOARD STATION
WITH CALTRAIN 9-TRACK AT GRADE STATION
(STA-17)

HST SAN JOSE DIRIDON STATION
(ELEVATED)

\$USER \$ DATE \$ \$TIME \$ \$FILES \$

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY
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IN CHARGE
DATE



CALIFORNIA HIGH-SPEED RAIL AUTHORITY

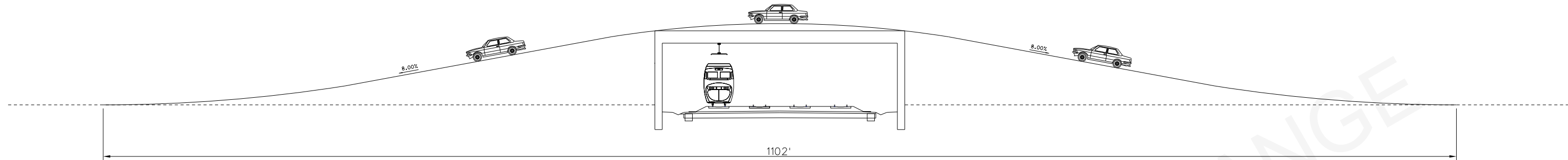
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Without ever leaving the ground.

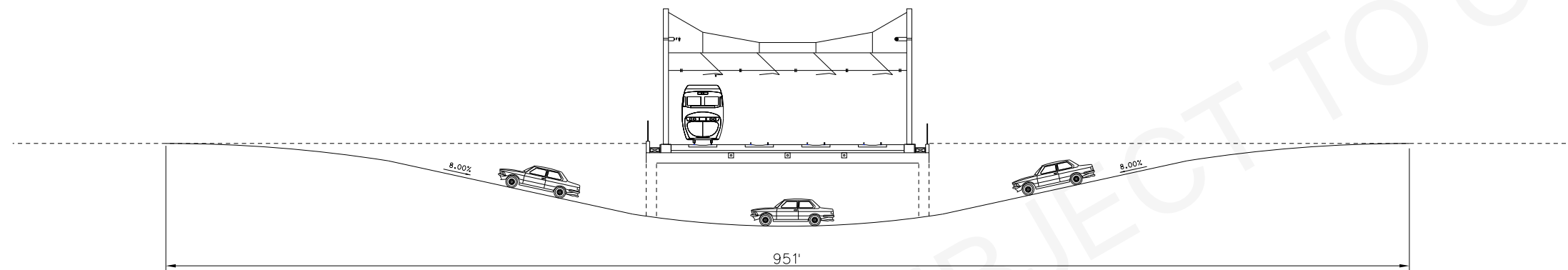
CALIFORNIA HIGH-SPEED TRAIN PROJECT

STATIONS
DRAFT TYPICAL SECTIONS
03/24/2010

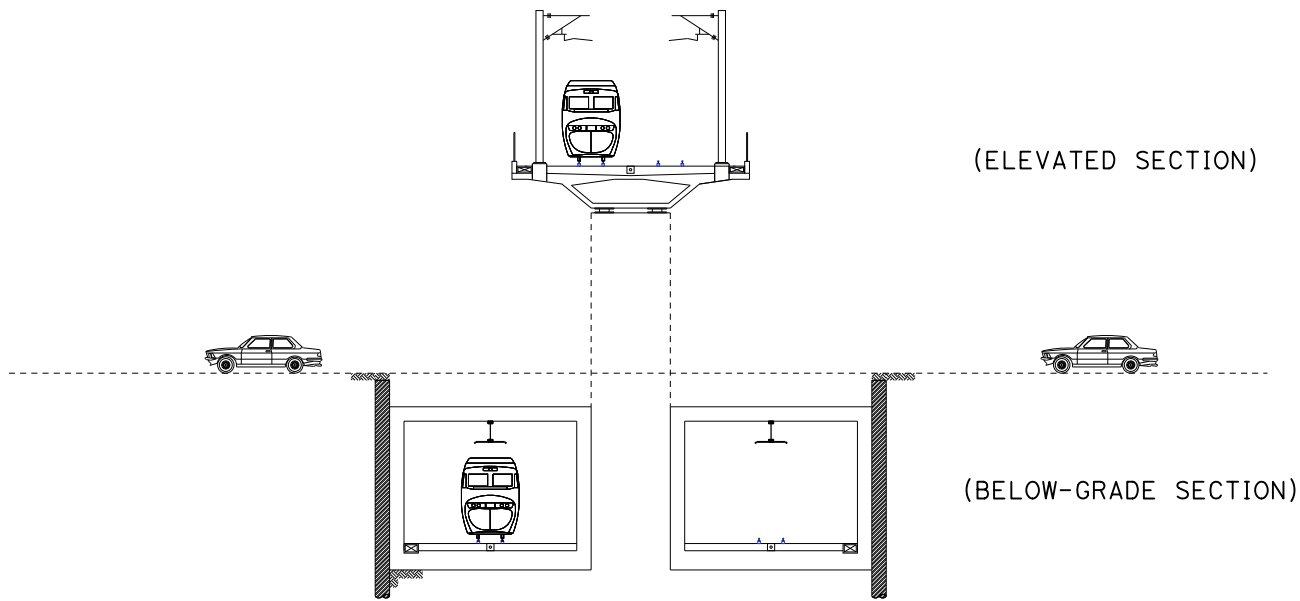
CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 9 OF 9



ROAD OVER RAIL
(CR-1)



ROAD UNDER RAIL
(CR-2)



ROAD AT GRADE
(CR-3)

(ELEVATED SECTION)

(BELOW-GRADE SECTION)

NOTE:
REFER TO TYPICAL SECTIONS SHEETS FOR THE DIFFERENT AT-GRADE,
BELOW-GRADE AND ELEVATED SECTIONS OPTIONS.

\$USER \$ DATE \$ \$TIME \$ \$FILES \$

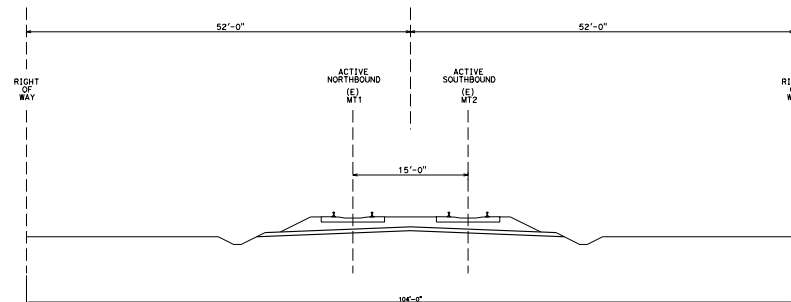
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DESIGNED BY
DRAWN BY
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IN CHARGE
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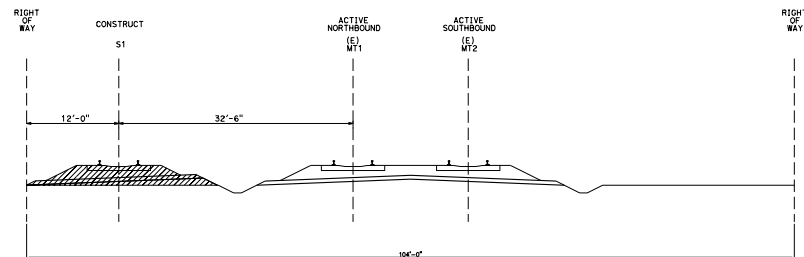


CALIFORNIA HIGH-SPEED TRAIN PROJECT
CROSSING
DRAFT TYPICAL SECTIONS
03/24/2010

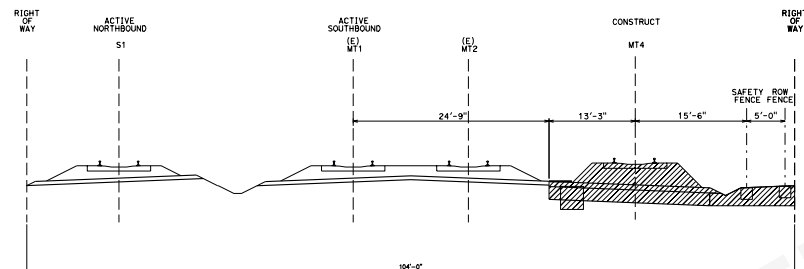
CONTRACT NO.
DRAWING NO.
SCALE
NTS
SHEET NO.
24 OF 24



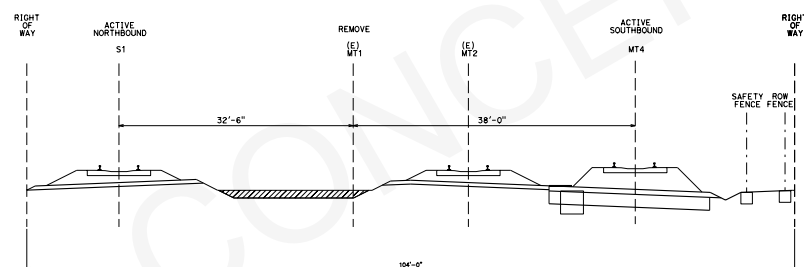
STAGE 0
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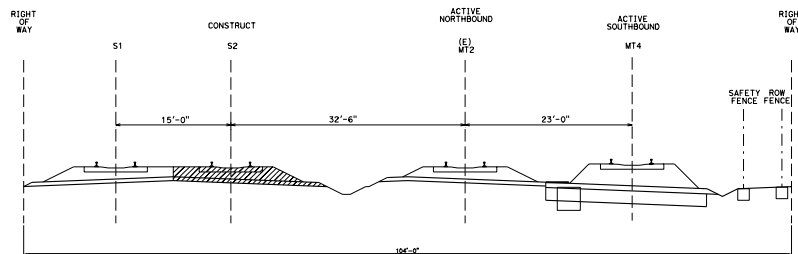
STAGE 1



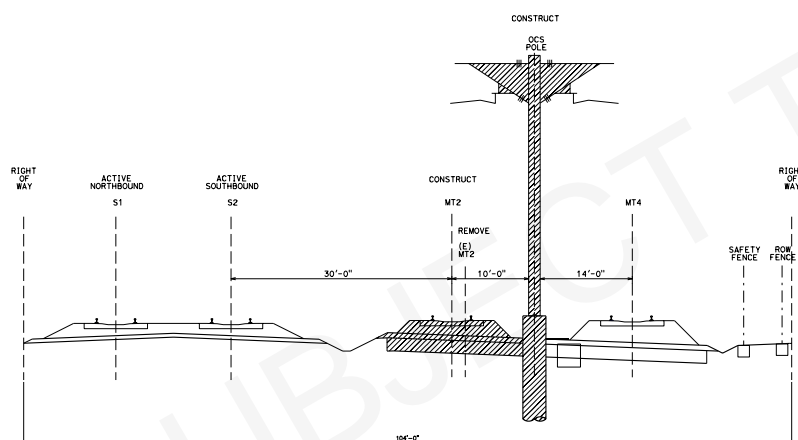
STAGE 2



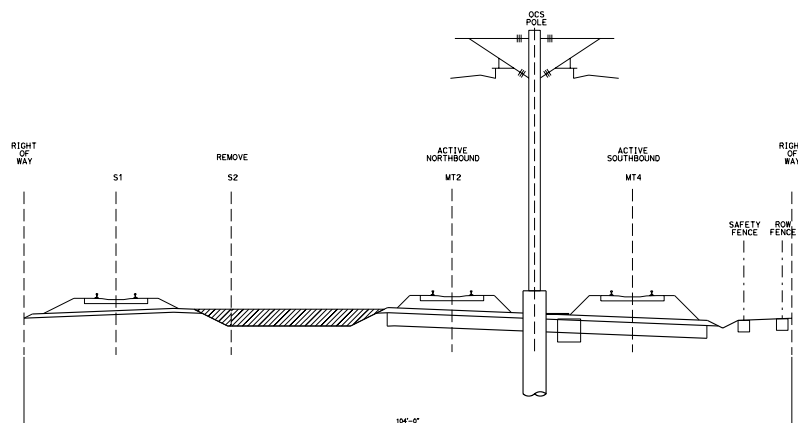
STAGE 3



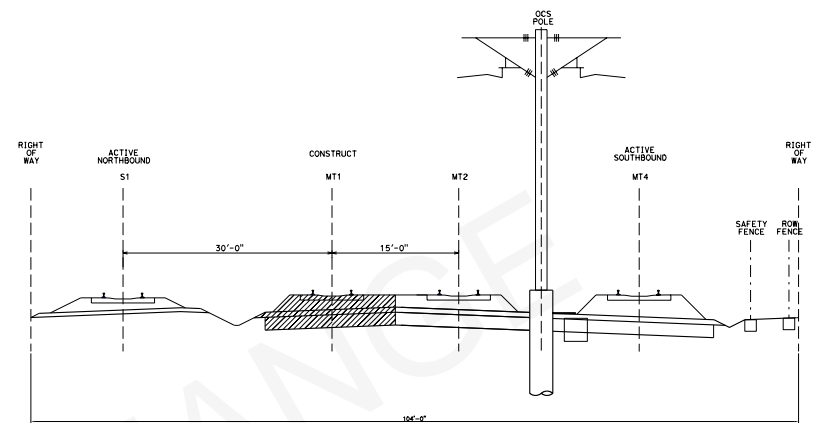
STAGE 4



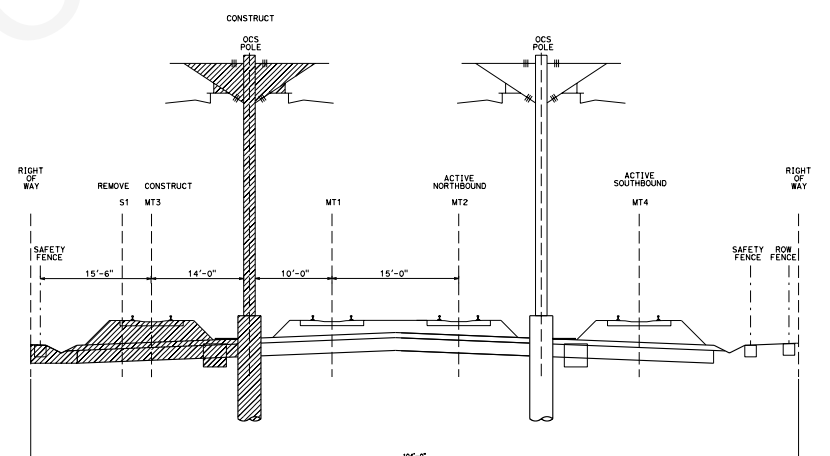
STAGE 5



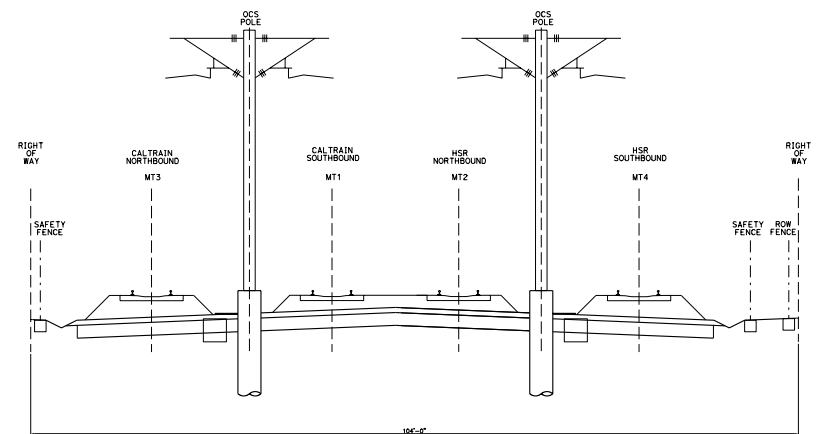
STAGE 6



STAGE 7



STAGE 8

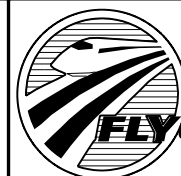


STAGE 9
CONSTRUCTION COMPLETE

\$/USER \$ DATE \$ TIME \$ FILES

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DESIGNED BY	
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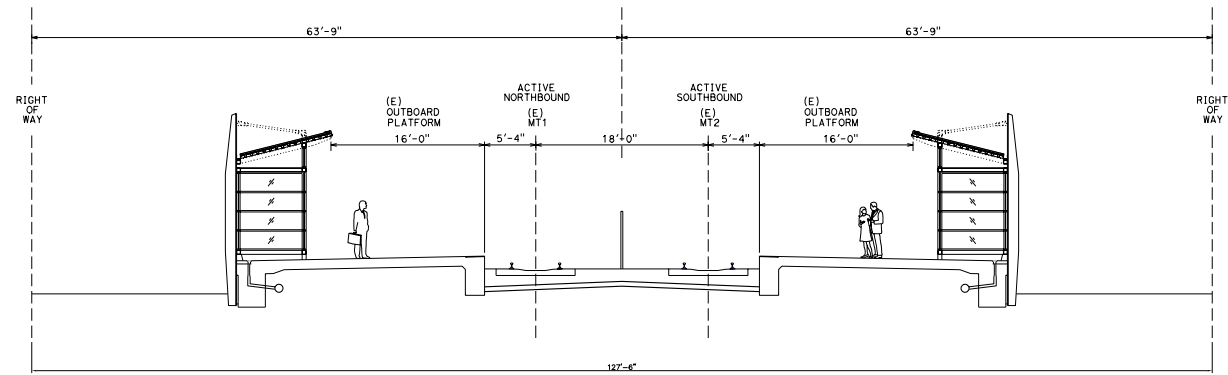


CALIFORNIA HIGH-SPEED RAIL AUTHORITY
FLY CALIFORNIA
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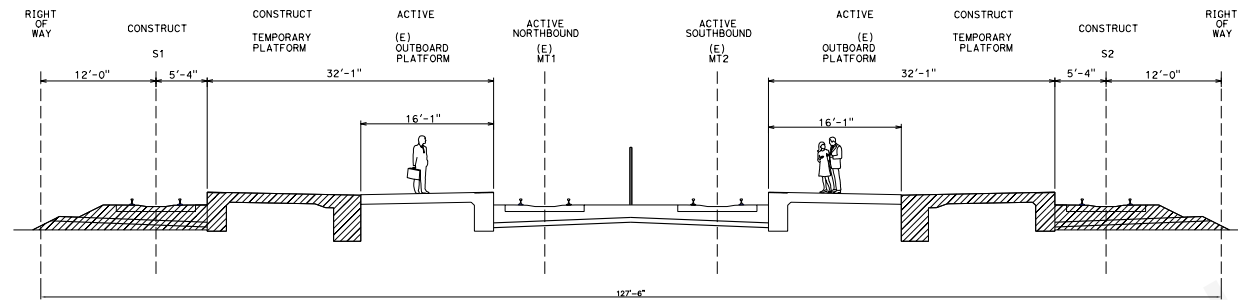
CALIFORNIA HIGH-SPEED TRAIN PROJECT

DRAFT TYPICAL SECTIONS - STAGING
AT-GRADE
02/19/2010

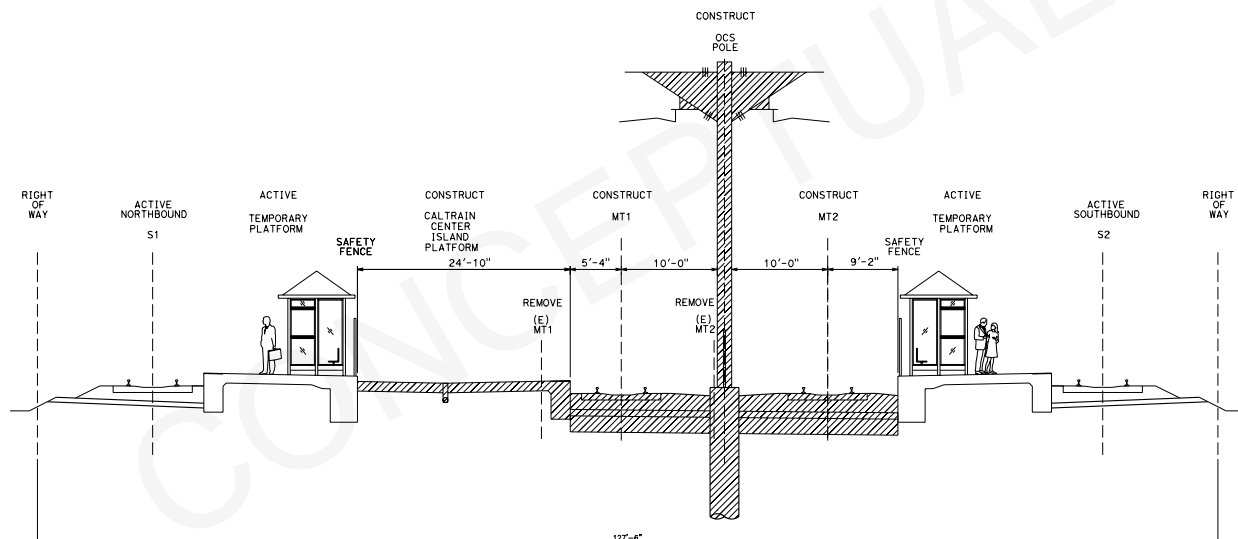
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SCALE	
SHEET NO.	1 OF 5



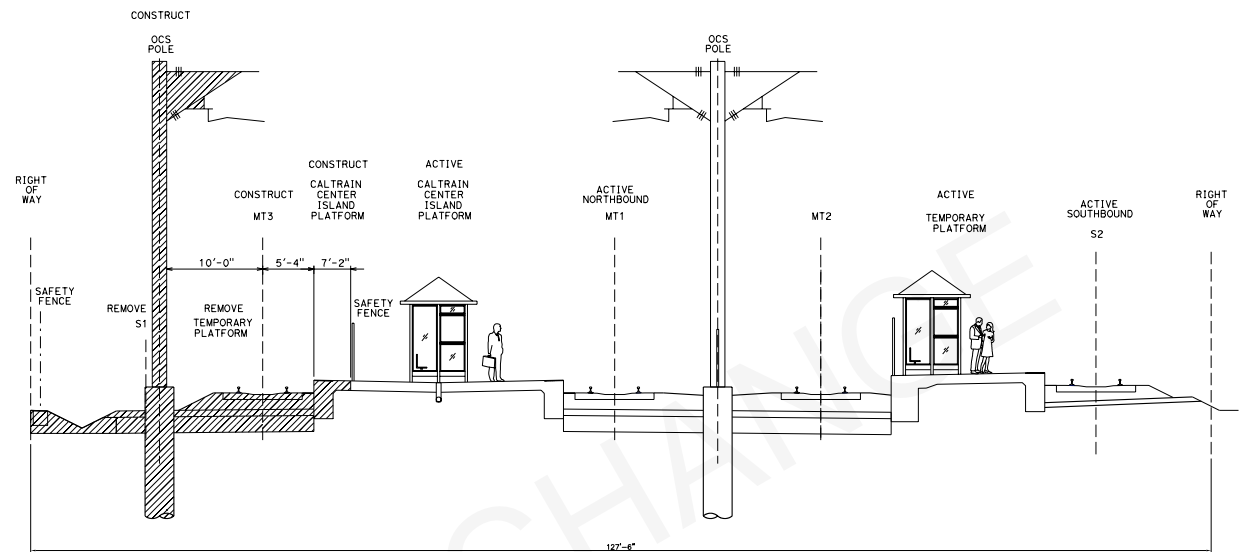
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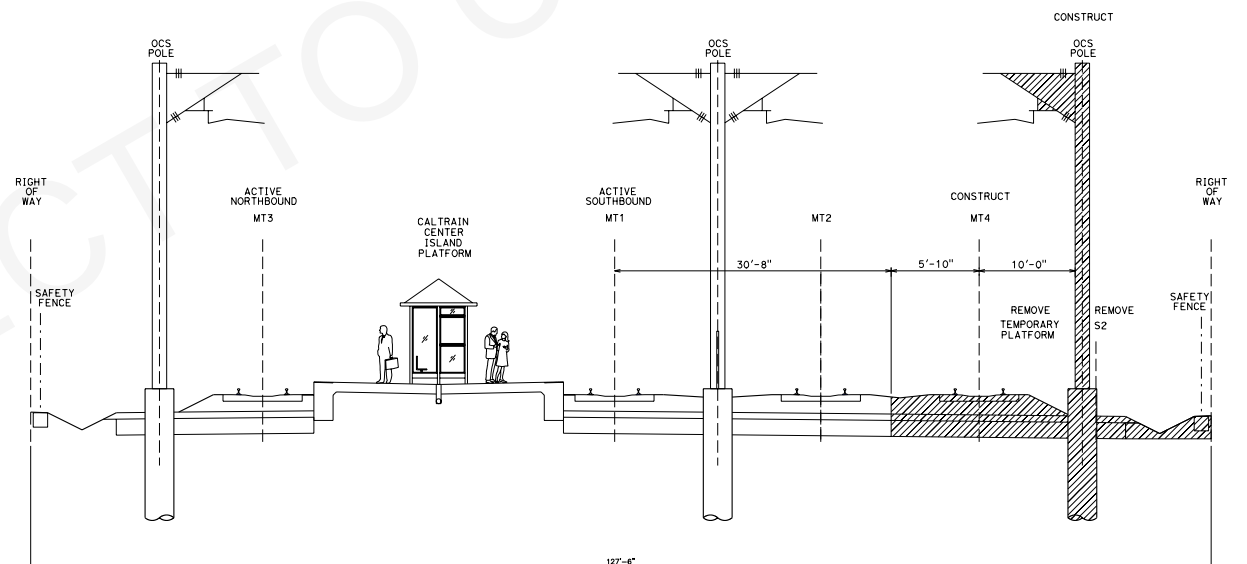
STAGE 1



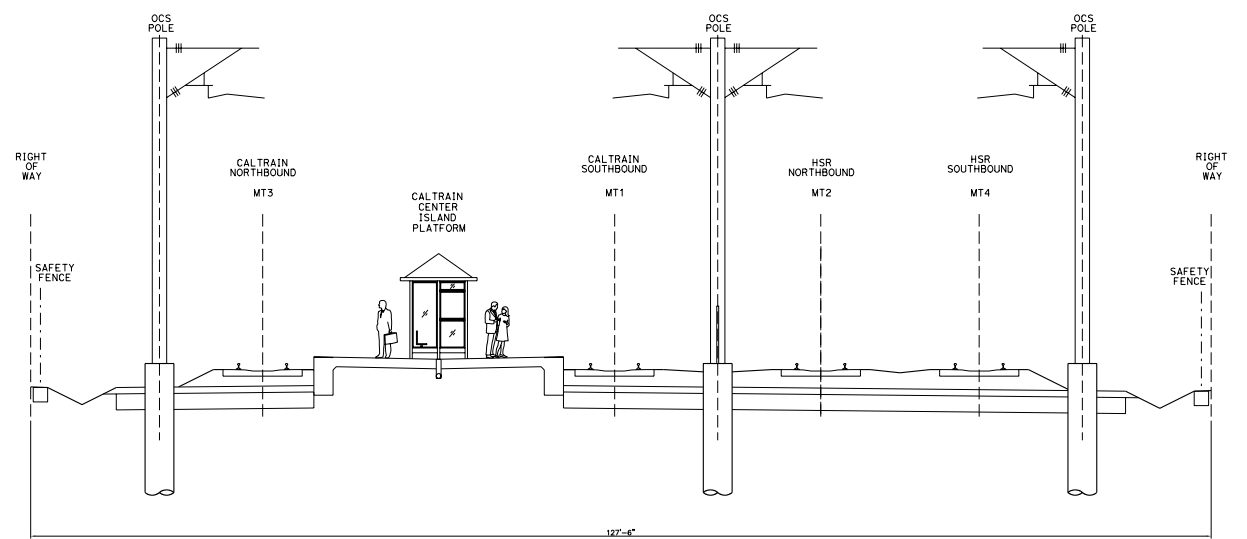
STAGE 2



STAGE 3



STAGE 4



STAGE 5
CONSTRUCTION COMPLETE

\$/USER \$ DATE \$ \$/TIME \$ \$/FILES \$

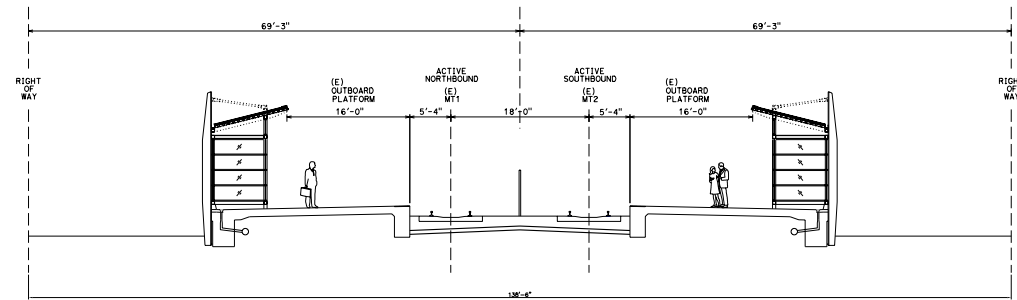
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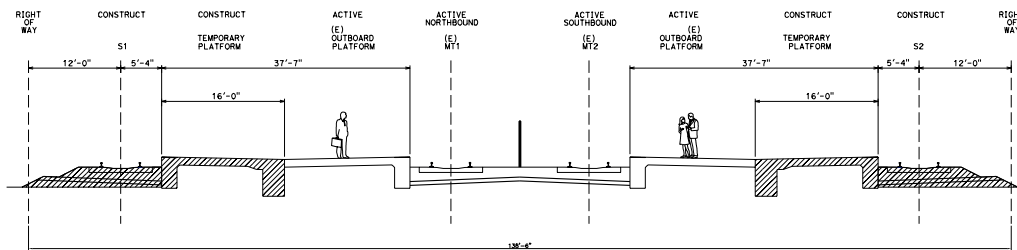


CALIFORNIA HIGH-SPEED TRAIN PROJECT
TYPICAL STATION E
DRAFT TYPICAL SECTIONS - STAGING
AT-GRADE
CALTRAIN STATION WITH CENTER ISLAND PLATFORM
02/19/2010

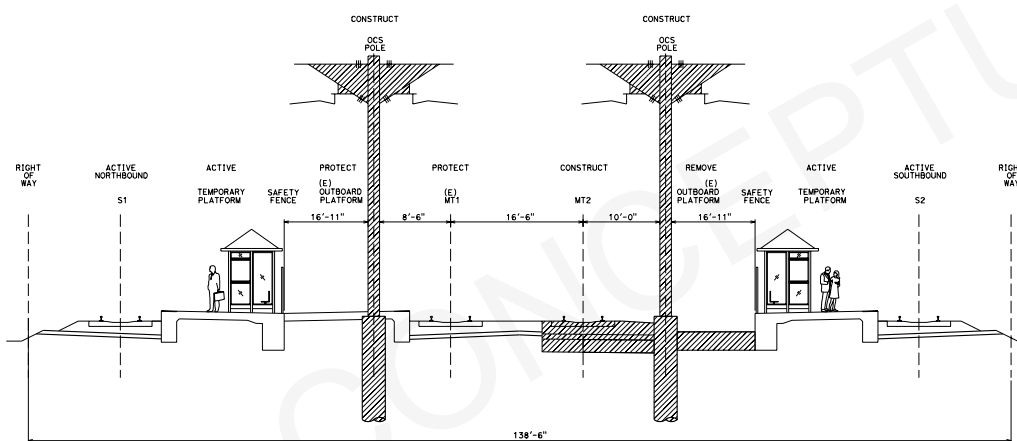
CONTRACT NO.	
DRAWING NO.	
SCALE	
SHEET NO.	2 OF 5



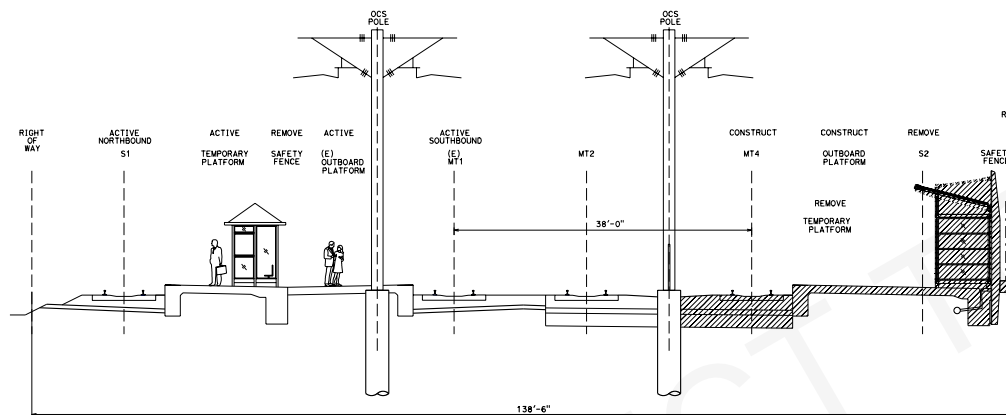
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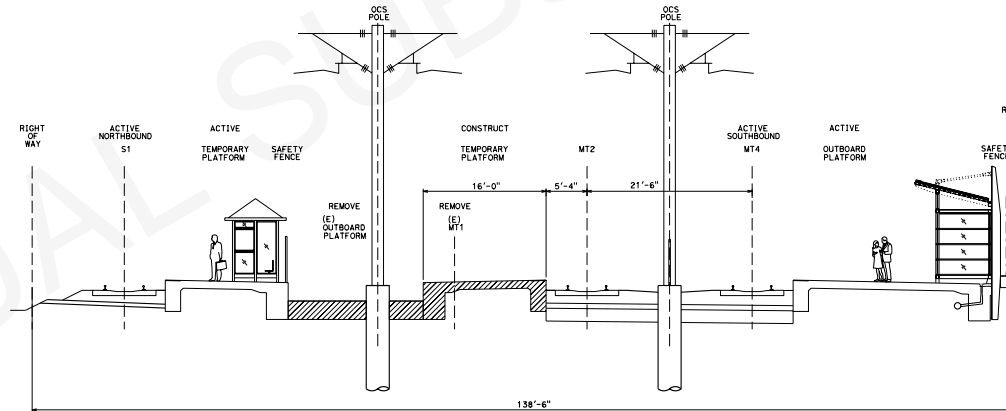
STAGE 1



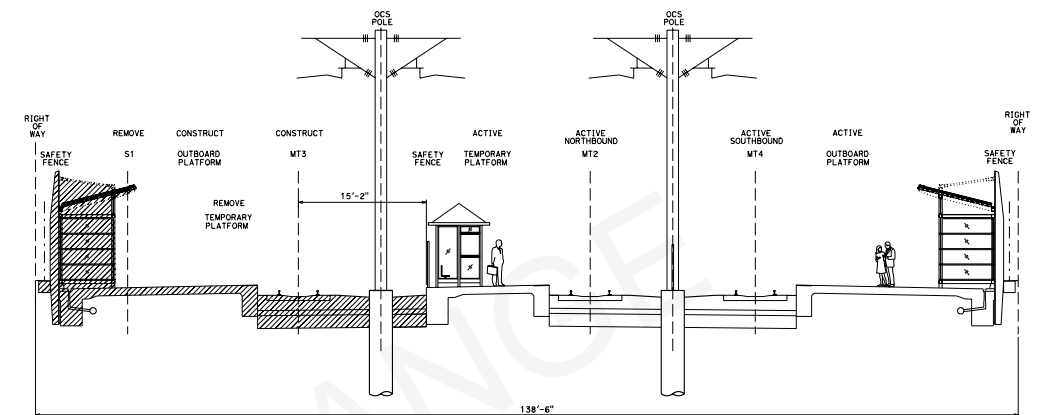
STAGE 2



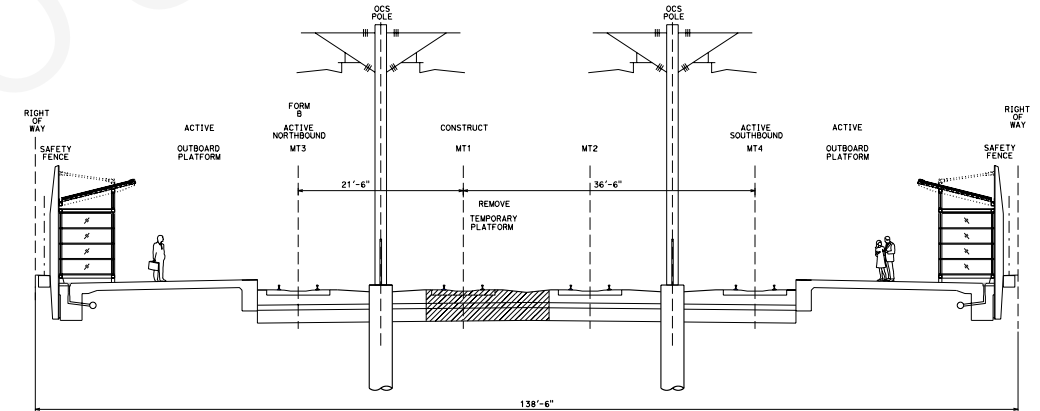
STAGE 3



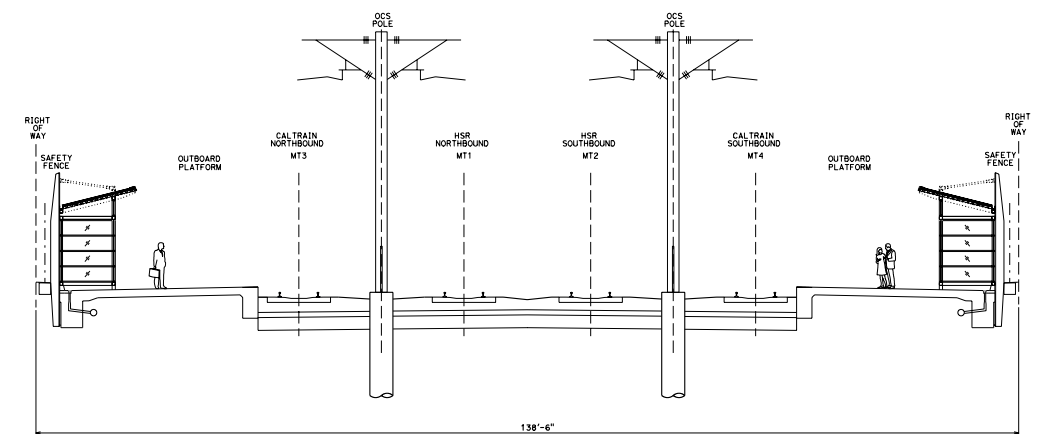
STAGE 4



STAGE 5



STAGE 6

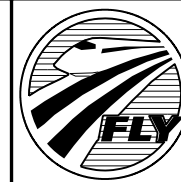


STAGE 7
CONSTRUCTION COMPLETE

\$USER \$DATE \$TIME \$FILES

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IN CHARGE	
DATE	

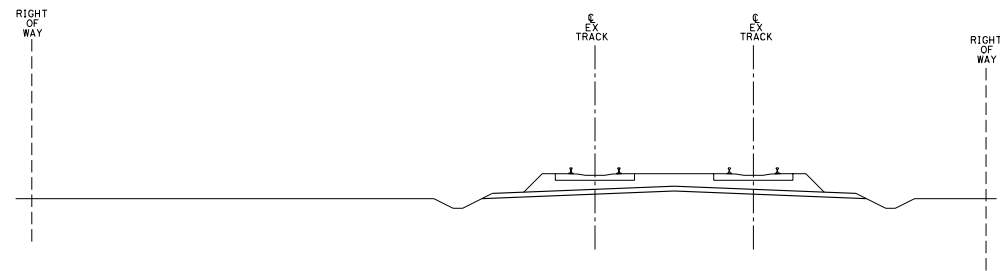


CALIFORNIA HIGH-SPEED RAIL AUTHORITY
FLY CALIFORNIA
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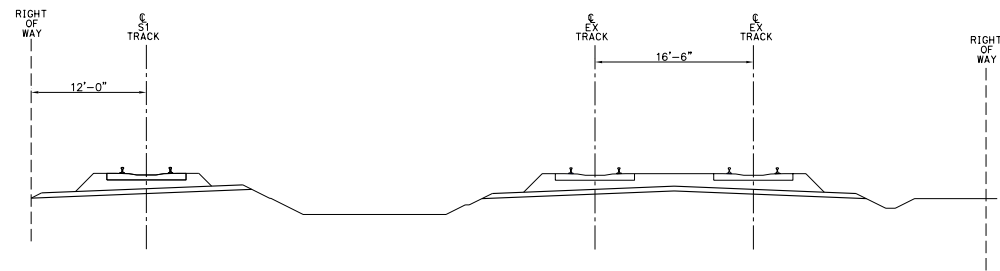
CALIFORNIA HIGH-SPEED TRAIN PROJECT

DRAFT TYPICAL SECTIONS - STAGING
AT-GRADE
CALTRAIN STATION WITH OUTBOARD PLATFORMS
02/19/2010

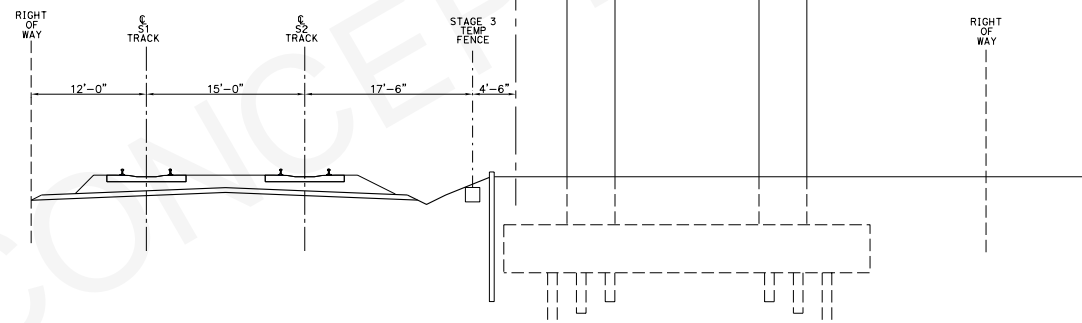
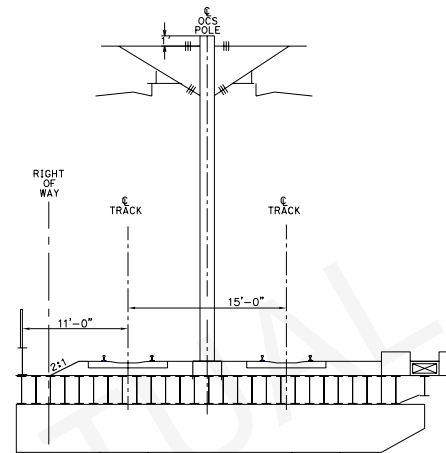
CONTRACT NO.	
DRAWING NO.	
SCALE	
SHEET NO.	3 OF 5



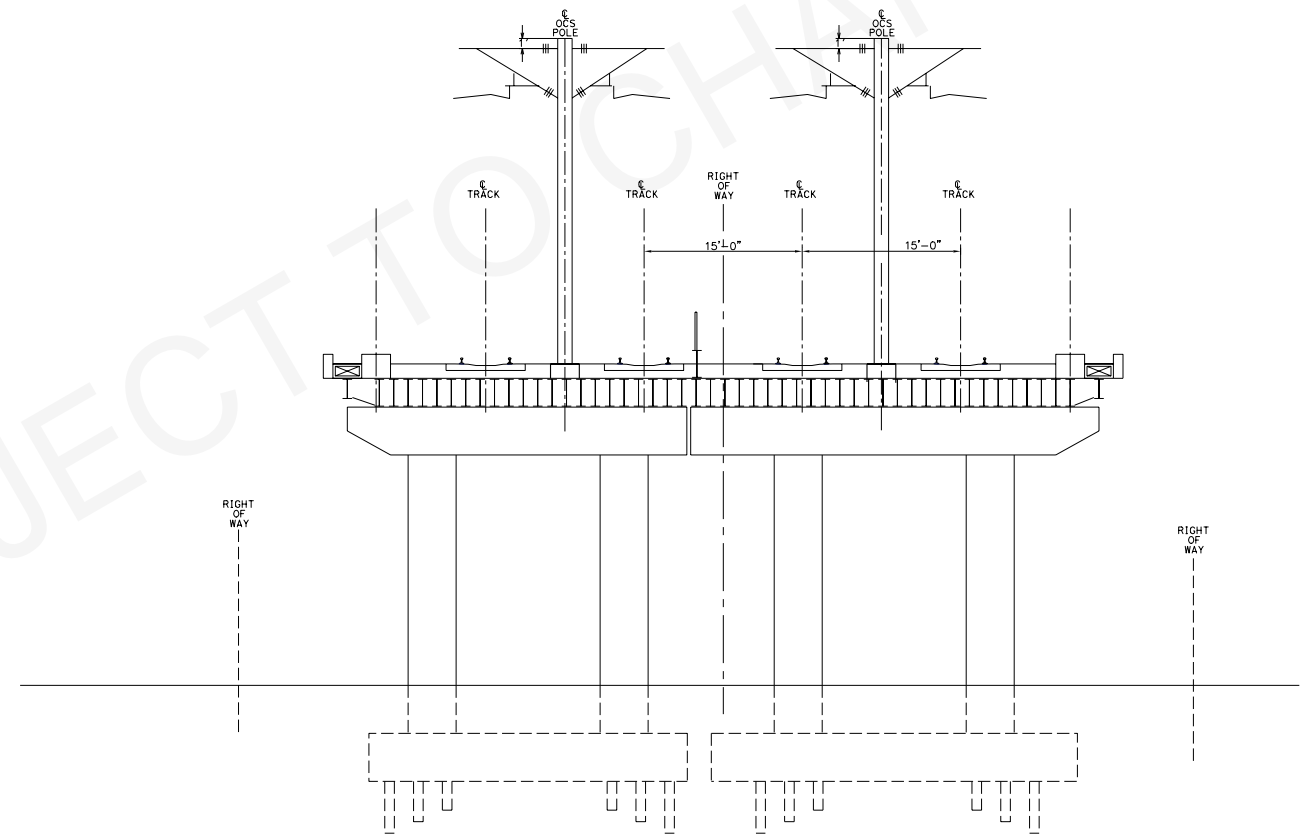
STAGE 0
EXISTING



STAGE 1



STAGE 2



STAGE 3
CONSTRUCTION COMPLETE

\$USER \$ DATE \$ TIME \$ FILES \$

REV	DATE	BY	CHK	APP	DESCRIPTION

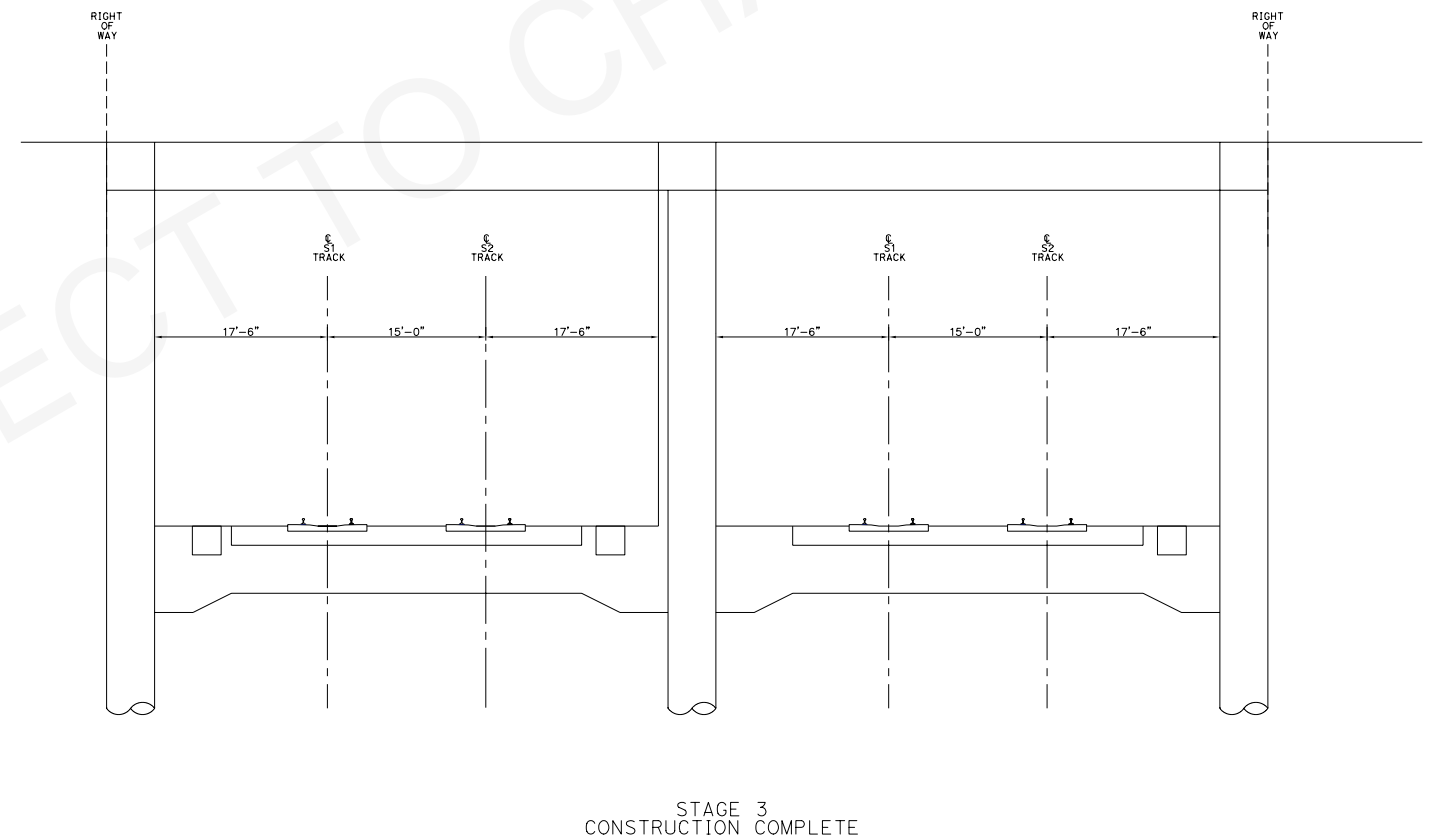
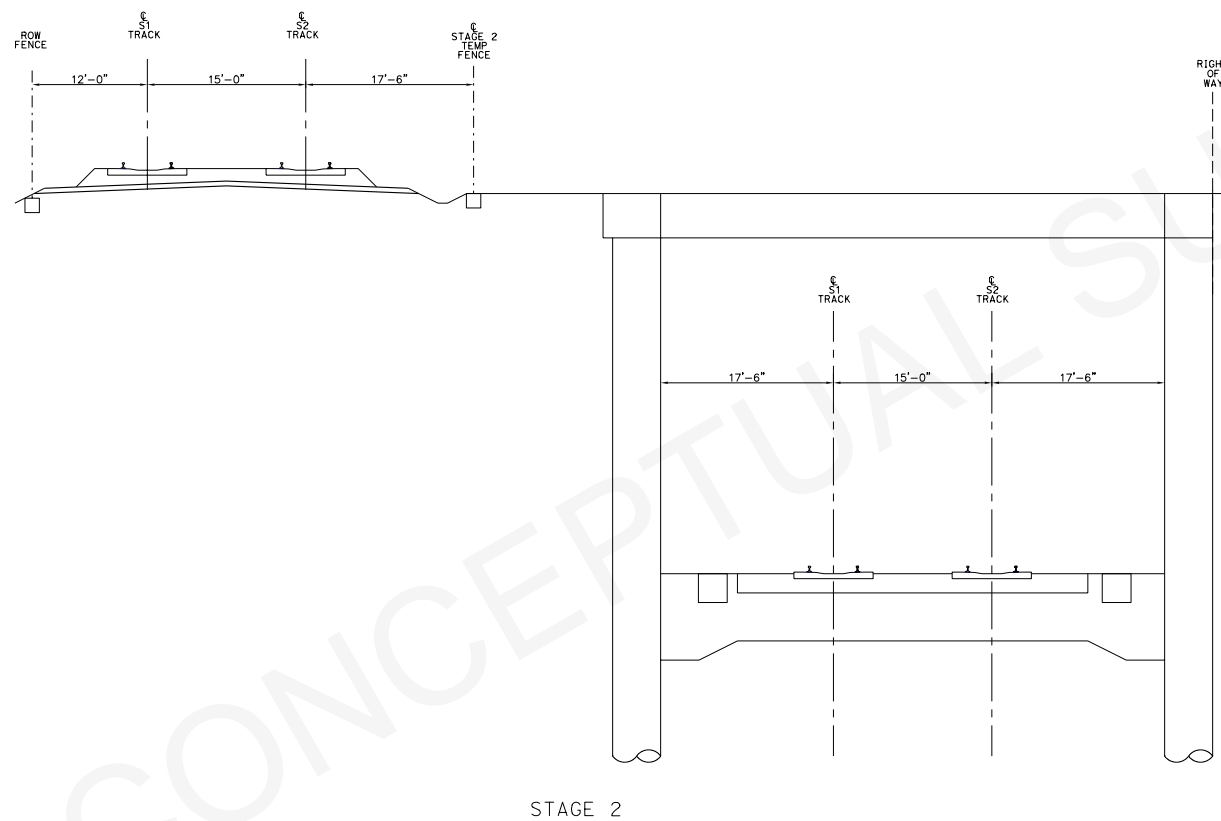
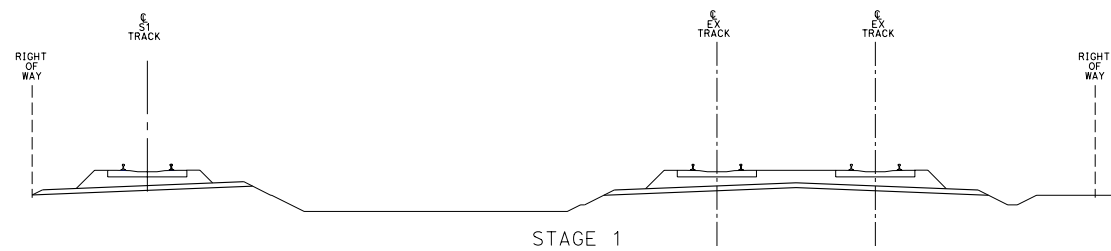
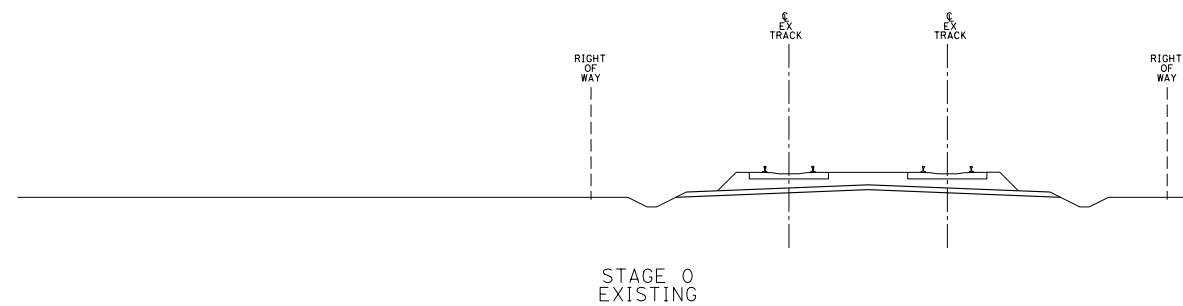
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CALIFORNIA HIGH-SPEED TRAIN PROJECT

DRAFT TYPICAL SECTIONS - STAGING
ELEVATED STRUCTURE
02/19/2010

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 4 OF 5



\$USER\$ \$DATE\$ \$TIME\$ \$FILES\$

REV	DATE	BY	CHK	APP	DESCRIPTION

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DATE



CALIFORNIA HIGH-SPEED TRAIN PROJECT

DRAFT TYPICAL SECTIONS - STAGING
BELOW GRADE
02/19/2010

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO. 5 OF 5